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Paper TRADE JOURNAL

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VOLUME 124, No. 17 APRIL 24, 1947

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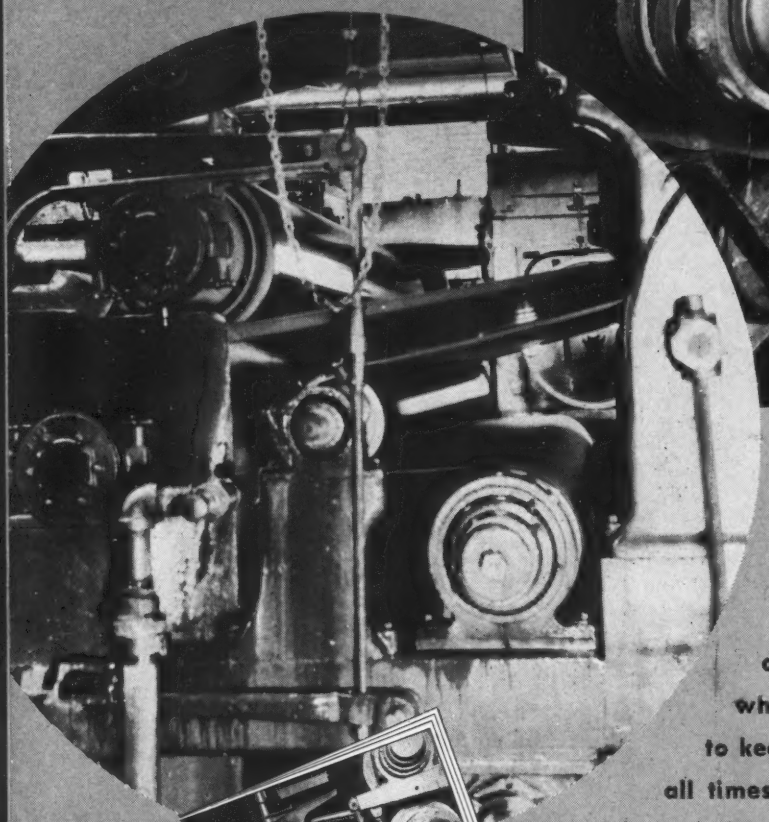

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CALENDAR OF COMING EVENTS

May 18-21, 1947—National Paper Box Association, Annual Convention, Hotel Traymore, Atlantic City, N. J.

May 22-24, 1947—American Pulp and Paper Mill Superintendents Association, Annual Convention, Edgewater Beach Hotel, Chicago.

June 11-13, 1947—Canadian Pulp and Paper Association, Technical Section, Summmer Meeting. Hotel Algonquin, St. Andrews-by-the-Sea, N. B.

October 27-29, 1947—The National Paper Trade Association of the U. S., Inc., Semi-annual Convention, Hotel Sherman, Chicago.

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Paper TRADE JOURNAL
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VOL. 124, NO. 17 APRIL 24, 1947

Horace Moses Closes Long Paper Career

SPRINGFIELD, Mass.—Horace A. Moses, eighty-five, paper manufacturer, philanthropist and youth leader, died here on Tuesday of this week. Mr. Moses was chairman of the board of the Strathmore Paper Company, of West Springfield, and was the founder of Junior Achievement, a national youth organization sponsored by the National Association of Manufacturers. On his eighty-fifth birthday yesterday, the Horace A. Moses Foundation announced a ten-year grant of $100,000 to finance the activities of Junior Achievement.

Mr. Moses was born in Ticonderoga, N. Y., the son of Henry H. and Emily J. Rising Moses. He was graduated in 1881 from the Troy Conference Academy, Poultney, Vt., and promptly entered the paper manufacturing business with the Agawam Paper Company.

A year later, Mr. Moses organized the Mittineague Paper Company, which he later consolidated with the Woronoco Paper Company. It was renamed the Stratmore Paper Company, and in 1911 he became chairman of the board.

Mr. Moses was also chairman of the board of the Rising Paper Company and president of the West Springfield Trust Company. He was a director of Premoid Products and of the Old Colony Envelope Company.

Mr. Moses devoted much effort, through Junior Achievement, to improving the status of city youths. As honorary president, he stimulated its development as an urban counterpart of the 4-H Clubs. The Midget Manufacturing Company, with all high school officers was organized by Junior Achievement as a means of giving young people a chance to study business first-hand before going into it.

He was honorary president of the New York State Historical Society, in 1945, and of the Hampden County Improvement League and Junior Achievement. He was a trustee of Boston University, Wesleyan University, Deerfield Academy, the Service League Foundation and the Trinity Methodist Episcopal Church, of Springfield.

Among his philanthropies was a $50,000 gift to Trinity Church, to use for a new chapel. He presented a liberty monument to Ticonderoga to commemorate the Revolutionary War

(Continued on page 50)

Industry Figures Higher Wages In Terms of Newsprint Price

Wisconsin River Valley Gets Half Million Seedlings

MERRILL, Wis.—Half a million seedling trees were being distributed to Wisconsin river valley land owners this week as the third annual Trees for Tomorrow, Inc., "2-for-1" reforestation plan got underway, starting April 21.

Applicants for trees received cards last week confirming orders after planting sites and soil conditions were checked and approved. In some instances a more suitable specie was substituted for the type requested following an on-the-spot survey by the Trees for Tomorrow forester. In all cases the number of trees each individual will receive has been scaled down, because requests exceeded a million seedlings, while only half that number was available because of a shortage of planting stock.

Foresters were on hand to give technical assistance to land owners. About 20% of the trees were to be planted by tree-planting machines.

The late HORACE A. MOSES

TORONTO, Ont. — Executives with sharp pencils have already figured out that the 14 cents an hour increase in wages last week granted 15,000 pulp and paper workers in Ontario pulp and paper mills, will add about $1.40 a ton to the cost of newsprint production.

It is generally assumed that 10 cents an hour in mill pay adds $1 per ton to the cost of newsprint production. Although labor cost and pulpwood cost increases vary from mill to mill, newsprint companies have had to contend with the following average increases since Jan. 1, 1947:

1. Freight rates costs up 25%, the equivalent of $2 per ton for the average mill; 2. Stumpage dues were increased 50% by the Quebec Government a few weeks ago. It is expected that this increase will mean an additional 75 cents a ton in the cost of newsprint production; about $1 a ton or more in kraft and sulphite production, where up to two cords of pulpwood per ton of finished product are required.

What the effect will be on wage increases in Quebec of this latest boost in wages in Ontario is problematical. Canadian International Paper Co., its affiliates and subsidiaries, will open negotiations with A. F. of L. labor representatives on April 23. There has always been a differential in wages for common labor of about six cents an hour as between the two provinces. If Quebec workers insist on this differential being eliminated it would suggest an increase of perhaps 20 cents an hour as a maximum.

On the basis of known costs increases, therefore, the average newsprint mill will have substantially less to bring to net profit than the $6 a ton price increase would suggest. Given all-out operations for the balance of the year, however, the industry as a whole should do substantially better than in 1946, when profits approached the record high level of $70 millions, including International Paper Co.'s U. S. operations. Assuming no further price increase in newsprint this year, the industry will still gross $10 a ton more than in 1946, according to one estimate.

Capehart Advocates Loan-Newsprint Tie

WASHINGTON — Possibility of tieing in United States government loans to foreign nations, to improved newsprint supplies from nations producing this commodity was suggested by Senator Homer E. Capehart, chairman of the Newsprint and Paper Shortage investigating subcommittee, last week.

"Possible additional supplies of newsprint from overseas might be assured to the United States from any European countries with which we negotiate loans in the future," the Senator said, at the subcommittee hearings.

"There are four ways to secure more newsprint for the United States," he continued; "by a better distribution of supplies now available, which the subcommittee is already attempting to solve; by the development of new newsprint mills in Alaska or in the United States—which would take at least three or four years to reach a point of production; to anticipate increased production capacity from existing mills in Canada, and to hope for increased shipments from overseas as the production of newsprint revives in European countries."

"It seems to me," the Senator continued, "that as we consider loans to foreign countries, we should also consider what materials or products those countries could exchange for our American dollars which would relieve the shortages that exist in our own country."

He suggested as an example, that Finland produces newsprint and its production is gradually recuperating, to the degree that Finland is making shipments to Russia, and to fill urgent demands from Latin American countries. He pointed out that the United States received a small tonnage from Finland in 1946—around 12,312 short tons. Prospects for Finnish shipments to the United States in 1947, he continued, are roughly estimated at around 75,000 tons, but actual receipts so far this year "do not indicate any such figure will be reached.

"I am not aiming this discussion particularly at Finland," Senator Capehart said. "Reciprocal arrangements of this sort should be made a part of all loan agreements that we reach with any foreign country. In addition to newsprint, shortages in a number of basic materials such as tin, copper, rubber, are affecting manufacture of many products in this country."

J. V. McNichol Joins Crown-Mark Paper Corp.

NEW YORK—J. V. McNichol, formerly associated with Bulkley, Dunton & Company, Incorporated, has joined Crown-Mark Paper Corporation as vice-president and sales executive, specializing in production and marketing of specialty papers suitable for the post-war specifications in such fields as packaging, converting, laminating and display.

Offices of Crown-Mark Paper Corporation are located at 342 Madison Avenue, New York City, under the presidency of John D. Wilson, who is widely known in the field of specialty papers.

Rothery Retires From Forest Service

WASHINGTON, D. C. — Julian E. Rothery, who entered the Federal forest service in July, 1908, and has been an inspector in the Division of Timber Management at Washington since August, 1935, is retiring from the service May 1. Leaving the Forest Service in February, 1913, Rothery became a consulting forester in New York City and continued in private employ, mainly in the paper and pulp field, until he re-entered government service in 1935. He was instrumental in building up the forest holdings of one of the largest American paper companies to more than 20,000,000 acres in the United States, Canada and Newfoundland.

He won international repute for his work in forest valuation and timber appraisal, in which he pioneered, and for explorations and mapping surveys in remote areas of the Labrador Peninsula, eastern Canada, Newfoundland, Alaska and British Columbia. His Newfoundland survey, made in 1933, was the basis for Army maps during the late war when the United States constructed a number of airports there.

A native of Brookline, Mass., Mr. Rothery's first job after leaving Yale was as a forest assistant on the Cache National Forest at Logan, Utah. He was made a deputy forest supervisor there a year later. While at Logan he organized the forestry course at Utah Agricultural College, including special training for western United States forest rangers. He was made supervisor of the old Idaho National Forest in 1910.

Rothery's early experiences as a forest service official in the Idaho wilderness provided him with material for a long series of magazine short stories. He is also the author of many articles in scientific and trade publications. He was graduated from Sheffield Scientific School, Yale, in 1907, and from the Yale School of Forestry where he took a master's degree in 1908. He is a fellow of the American Association for the Advancement of Science and a member of American and Canadian forestry societies. Since 1935, he has lived at 3310 Rowland Place, N.W., Washington, D. C., but will make his new home at Cotuit, Cape Cod, Mass.

Carpenter Joins N. Y. & Penn

NEW YORK—Peter Paine, President of the New York & Pennsylvania Company, Inc., has named Dr. Charles Carpenter, formerly general superintendent of the Southland Paper Company, to their staff as special assistant to V. M. Stouck, vice-president and general manager.

Newspaper Inventories Reduced in March

Daily newspapers reporting to the American Newspaper Publishers Association had stocks of newsprint in transit and on hand representing an over-all average of 29 days' supply at the end of March 1947, which is a decrease of 3 days' supply compared with stocks on hand and in transit at the end of February 1947. This supply of 29 days at the end of March compares with 29 days at the end of March 1946, 46 days at the end of March 1945, and 36 days at the end of March 1941.

Daily newspapers reporting to the ANPA consumed 302,672 tons of newsprint in March 1947, compared with 267,711 tons in March 1946 and 258,518 tons in March 1941. This was an increase in March 1947 over March 1946 of 13.1% and an increase over March 1941 of 17.1%. The year 1941 was the base for calculating allowable use for newspapers under WPB Order L-240 until revoked effective December 31, 1945.

The total estimated newsprint consumption in the United States for March 1947 was 414,619 tons which includes all kinds of uses of newsprint. For the first three months in 1947 it is estimated to be 1,133,586 tons. During the first three months of 1947 the reporting newspapers used 827,518 tons of newsprint, an increase of 16.2% over the first three months of 1946 and an increase of 16.9% over the first three months of 1941.

Hall Line to Add Four New Pulp Carriers

OGDENSBURG, N. Y.—Four new steel freighters will be operated by the Hall Corporation of Canada, on the lakes and river route pulpwood trade shortly. Frank A. Augsbury of this city is the chief owner of the corporation.

The ships, ordered sometime ago from the Canadian Vickers firm of Montreal, are said to repreesnt an investment of approximately $2,000,000.

One of the vessels was expected to arrive here in time for the opening of the 1947 navigation season. The keel of this ship was laid last fall, but delays in the delivery of the required steel has retarded construction.

The new freighters, the first to be laid down in Montreal since hostilities concluded, will be the most modern on the Great Lakes and will be equipped with Skinner engines.

The Hall company operates a large fleet of lake and river ships in the pulpwood trade.

Mathieson to Add Space

NIAGARA FALLS, N. Y.—The Mathieson Alkali Works has applied to the city for a building permit to erect a storage building at an estimated cost of $14,000.

St. Regis Gathers Its Bag Forces at Oswego

OSWEGO, N. Y. — New grades and finishes of paper, used in the manufacture of multi-walled bags, improved closures and new and improved bag-making and bag-filling machinery and equipment were discussed at a two-day meeting of officials and executives of the research and development department of the St. Regis Paper Company, at the Oswego plant last week.

Carl H. Hartmen, director of technical development and vice-president of the St. Regis Sales Corporation, a subsidiary of the paper company, was in charge. Present were 47 representatives from all parts of the United States and Canada and also the company's European manager and foreign relations representative, H. Hoppe, whose headquarters are in Paris, France.

During the war years, it was pointed out, all of the resources of St. Regis Paper and subsidiary companies were used for the development of paper and bags as well as kindred machinery that would help in the prosecution of the war, but during the last year and one-half, all efforts have been put forth for the improvement of the bag industry as a purely commercial proposition.

Great strides have been made in this brief period, it was declared, and the improvements in paper, bags, bag-making and bag-filling machines has put St. Regis far out in front in the manufacture of bags used in the handling of scores of commodities.

St. Regis now has 12 plants engaged in the manufacture of paper and multi-wall bags scattered from coast to coast and several in Canada. A new plant is now being developed at Pensacola, Fla., as the result of the purchase by St. Regis a few months ago of the Florida Pulp & Paper Co. holdings there. The general manager of the Florida plant, Karl Kardson, was present at the conference.

It was pointed out that more than 400 different products in the construction, agricultural and chemical fields are being marketed in these containers. One of the more recent developments in the bag line, it was said, is a flour bag that will hold 100 pounds. These bags are being used in shipping flour from the mills to the larger consumers of flour, mainly bakeries.

While in Oswego, the executives and officials spent considerable time inspecting operations in the Taggart Corporation plant, the largest multi-wall bag manufacturing plant in the world. Attached to this plant and a part of it is paper mill which turns out a sufficient amount of kraft paper to meet the requirements of the gigantic bag factory.

In connection with this plan, the all-important machine division of St. Regis is also located in Oswego. In this plant bag-making and bag-filling machinery is constantly being developed and improved by a highly skilled force of engineers and technicians. In this plant the machines are not only developed but are actually constructed by a force of nearly 250 highly skilled mechanics, working in one of the most modern machine plants to be found in the country.

It was predicted in connection with the conference that the vast Oswego plant would this year break all records in bag output.

Last year, the Oswego plant had an output of 8,000,000 multi-wall bags per month, but this year it is expected that the average will reach a high at 12,000,000 per month. Increase in production has been made possible by the inauguration of a night shift in the factory. Further increase in production, it was said, would result if sufficient help could be obtained for the operation of the plant on a 24-hour schedule.

Other key men at the conference included Edward R. Gay, vice-president of St. Regis Paper Company; Willard Hahn, in charge of operations in all of the 12 multi-wall bag plants of the corporation; Joseph A. Quinlan, vice-president and traffic manager of St. Regis; Carl B. Martin, vice-president and director of St. Regis; and Kenneth D. Lozier, vice-president of St. Regis Sales Corporation.

Brown Employees Choose International Brotherhood

ADAMS, Mass.—Employes of the L. L. Brown Paper Co. have chosen International Brotherhood of Paper Makers, AFL, as their official bargaining agent in an NLRB supervised election.

The vote was 142 in favor of the union and 18 voting for no union. A total of 160 employes out of 171 eligible cast ballots. Foremen and office employes were not included.

It is expected that an Adams Branch of the A. F. of L. union will now be organized among the Brown company employes who for some time past have been represented by an independent union which is now being disbanded.

Two other unions were interested in the election at the Brown plant, but decided not to go on the ballot. Of these two the United Textile Workers of America, CIO, notified the NLRB it was interested, while the United Mine Workers, District 59, had some cards signed by employes, as did the CIO, but neither participated in the election.

U. S. Envelope Acquires Tract

SPRINGFIELD, Mass. — Deeds have been filed in the registry of deeds whereby the Boston & Maine railroad transfers land to the United States Envelope company for a consideration of about $75,000. According to the papers, the land adjoins that of the Envelope company and is 202 feet by 144 feet.

Bemis Brothers Plans Jacksonville Plant

JACKSONVILLE, Fla.—Bemis Brothers Bag Company, a national manufacturing organization with headquarters in St. Louis, has leased property here and will open a branch plant in Jacksonville.

Informed sources said the new plant here will make and print textile bags from cotton and burlap cloth, largely used for commercial feeds, fertilizers and potatoes, and also will turn out open mesh bags, from cotton and paper, for citrus fruits and fresh vegetables. Operations are to begin in the near future and initial employment will be furnished approximately 75 persons, mostly women.

According to the Jacksonville Times-Union, the lease was negotiated for Bemis Brothers by George W. Semmes and W. F. Marshall of the Stockton, Whatley, Davin and Company organization, local realtors. L. L. Conrad, a native of New Orleans and associated with Bemis for 37 years, will manage the new plant.

Company officials indicated that Jacksonville was selected as a location for the plant because of the growing importance of this city as an industrial center and the opportunities for efficiently serving users in the Southeast.

Michigan Safety Conference Sets Up Paper Mill Session

DETROIT — "Selling safety in the paper industry" is one of the themes of the 17th annual Michigan Safety Conference, to be held May 20-22 at the Book Cadillac Hotel in Detroit. C. L. Lyon, personnel manager and director of safety of the Scott Paper Company, Chester, Pa., will be the principal speaker, according to the Paper and Pulp Session chairman, Gordon L. Moore, safety engineer of Lee Paper Company, Vicksburg, Mich.

An open forum covering previously submitted safety subjects and problems will be conducted by W. C. Etter, director of safety and personnel of the River Raisin Paper Company, Monroe, Mich.

The sessions, Moore said, will begin at 1:30 P.M. Tuesday, May 20, in the Founders Room of the Book-Cadillac.

Fire Spares Parsons Division

HOLYOKE, Mass.—Damage of about $500 resulted from a fire in the rag cutting and dusting room in the Parsons Division of American Writing Paper Corporation. The blaze, starting in the motor of a rag-cutting machine, spread to the duster machine and through the room to seven trucks filled with cut rags. Firemen said mill employes did an excellent job in keeping the fire from spreading until the department arrived.

Chicago Honors Tappi Praises Group Program

CHICAGO—The Chicago Professional Paper Group held one of its biggest educational and inspirational meetings, last Monday in the dining rooms of the Chicago Bar Association. General representatives of the National TAPPI organization were on hand as guests and as participants in the program. W. E. Brawn, Pejepscot Paper Company of Brunswick, Maine, and president of TAPPI, were honored guests and told the Chicago group about the TAPPI's national program. Kenneth Geohegan of the Aetna Paper Company of Dayton, Ohio, chairman of the Section Committee of TAPPI, discussed "Local TAPPI Activities," a subject of absorbing interest to the membership of the Chicago Professional Paper Group as this organization just recently affiliated with the national society.

The main event of the evening was the local appearance of Allen Abrams, Marathon Corporation of Rothschild, Wisconsin, who discussed "Research As A Business." Abrams is one of the best known and most widely recognzed authorities on subjects pertaining to the pulp and paper industry. Because of his splendid knowledge of his subject and of the paper trade in general, the Marathon executive is always a top attendance drawing card. His appearance in Chicago created widespread interest and the publicity and arrangements committee headed by G. N. Alderson, really publicized the meeting.

Members of the Chicago Professional Paper Group are also loud in their praise of the Group mailings announcing the monthly events. The current mailing aptly illustrates the objectives of TAPPI in honor of its guests and pictorializes the research steps so important in the paper trade as a special bow to Abrams. The paper trade in general will be interested to learn that the Group never passes up a chance to sell the size and scope of the industry as witness the legend at the bottom of the current mailing piece, "Symbol of Leadership. Paper . . . America's 6th Industry."

Dow's Dr. John Grebe Wins Hyatt Award

DETROIT—Dr. John J. Grebe, director of Dow Chemical Company's physical research laboratory, Midland, Mich., received the John Wesley Hyatt Award this week for outstanding achievement in the plastics industry during 1946.

The 47-year-old chemist received the gold medal and one thousand dollars which comprise the annual Hyatt award at ceremonies following dinner in the English and Michigan suite at the Hotel Statler here.

Charles F. Kettering, vice-president of General Motors Corporation and a member of the Hyatt Award committee, presented the award to Dr. Grebe for his work in the production of pure styrene and its polymerization. More than 70 persons attended the ceremony.

Walter Dorwin Teague, industrial designer and author of books on economics and politics, spoke on "Design in the World Today."

Richard F. Bach, dean of education and extension, Metropolitan Museum of Art in New York, served as toastmaster.

Tri-State Council Meets Pulp and Paper Mill

KAUKAUNA, Wis.—Plans have been virtually completed for the Tri-State district council of the Pulp, Sulphite and Paper Mill Workers scheduled for Sunday, April 27, in the high school auditorium, according to George Gerrits, general chairman. Delegates will attend from Wisconsin, Minnesota and Upper Michigan.

Walter Trautman, international representative for the union, will be the main speaker for the unions at the gathering, and C. F. Seaborne, vice president in charge of manufacturing of Thilmany Pulp and Power Company, Kaukauna, will be the principal speaker for industry.

Other speakers representing industry will be L. F. Nelson, president of the Badger Tissue Mills, Kaukauna; Gerald Muggleton, vice-president and general manager of the Combined Locks Paper Company, and L. C. Smith, director of industrial relations at the Thilmany mill.

Elmer Meinz, St. Paul, Minn., will be master of ceremonies. The meeting will be open to all union members of pulp and paper locals, not only to delegates, Mr. Gerrits said.

Twin City Council Shows Safety Film

MENASHA, Wis.—Seventy foremen and supervisors attended a meeting of the Twin City Safety Council at Germania hall Wednesday evening, April 16. Featured were a movie of the use of handicapped workers and a talk by A. J. Matthias on "The Working Man and Safety."

Harold G. Zimmer, assistant case supervisor of the rehabilitation division of the Wisconsin State Board of Vocational and Adult Education, presented a colored sound movie showing how amputees, the blind and other handicapped persons are trained and fitted for useful occupations.

B. A. Williams Leaves Crane

DALTON, Mass.—Burton A. Williams has retired from Crane & Company after nearly 37 years of service. At the time of his retirement he was the foreman of the maintenance crew at the Old Berkshire Mill, where he had worked during most of his association with the company.

Mill Managers Hold Coating Conference

KALAMAZOO, Mich.—A hundred and forty-four paper mill managers, superintendents and technical men gathered at the Park-American Hotel, April 17, for the annual coating conference of the Michigan division of the American Pulp and Paper Mill Superintendents Association. Walter Wolfe, MacSimBar Paper Company, chairman, presided and introduced the speaker, John F. Halladay, industrial process consultant, Elkhart, Ind.

Halladay discussed all phases of the coating end of the paper and board industry, augmenting his technical presentation of the subject with slides showing the various coating processes and the resultant product.

After the talk O. W. Callighan, chapter secretary and treasurer, served as moderator of a panel discussion. Questions written by the members of the audience were channeled by Callighan to six experts on the panel. These men were Peter J. Massey, manager of the Bryant division of the St. Regis Paper Company; James R. Simpson, development engineer of the Champion Paper and Fibre Corporation, Hamilton, Ohio; Lester Smith, St. Regis Paper Company; A. P. Gardner, coating mill superintendent of Crown Zellerbach, West Linn, Ore.; R. H. Kelly, manager of the Marathon Corporation, Rothschild, Wis.; and Gilbert Dickerman, technical director of the Consolidated Water Power and Paper Company, Wisconsin Rapids, Wis.

During the business meeting, Wolfe announced that the annual ladies night program will be held at the Park-American on May 3 and will feature a dinner dance with Harris O. Ware, as toastmaster. The annual sports day at the Gull Lake Country Club will be on July 17.

O'Brien Named Personnel Manager

HOLYOKE, Mass.—Announcement has been made by the Worthington Pump Corporation that Albert H. O'Brien has been named personnel manager in charge of all industrial and labor relation matters at the Holyoke plant. O'Brien, who assumed his duties on the 1st, is replacing Eugene P. Tamburi, who left to assume the management of his hotel in Stamford, Conn.

American Writing Elects Directors

HOLYOKE, Mass.—At the annual meeting of the American Writing Paper Corp. held at its main office the following directors were reelected: Thomas H. Blodgett, Peter Freedman, A. E. Payson, Lysle E. Pritchard, E. C. Reid and George E. Warren. There was no election to fill the vacancy on the directorate caused by the death of Leon M. Yoerg.

APPSMA Lays Plans For Annual Meeting

CHICAGO—The American Pulp and Paper Mill Superintendents Association will hold their annual convention here at the Edgewater Beach Hotel May 22 through 24. Thursday morning's general conference on Waste in White Water will feature speakers Fred C. Clarke and Arthur Thurn. Thursday afternoon a general conference on Labor Relations will have DeLoss Walker as the speaker. Most of Friday will be taken up by various group meetings ending in the evening with a get-together party and banquet dance. Ladies attending the convention will have their own luncheon and dinner on Thursday to be followed with a bridge party and banquet dance on Friday.

The tentative programs follows:

WEDNESDAY, MAY 21st
10:00 a.m.—Directors Meeting
12:15 p.m.—Directors Luncheon
2:00 p.m.—Directors Meeting
7:00 p.m.—Affiliates Dinner

THURSDAY, MAY 22nd
9:30 a.m.—Business Meeting
10:30 a.m.—General Conference
"Waste in White Water"
Speakers:
Fred C. Clarke, Arthur Thurn
12:30 p.m.—Men's Luncheon
2:30 p.m.—General Conference
"Labor Relations"
Speaker: DeLoss Walker
7:00 p.m.—Dinner in Marine Dining Room (Optional)

FRIDAY, MAY 23rd
9:30 a.m.—Group Meetings
Chemical Pulp
Power and Plant Engineers
Tissue
Coated Papers
12:30 p.m.—Lunch where you will
2:30 p.m.—Group Meetings
Fine Papers
Woodroom and Woods Operations
Board
Kraft
6:00 p.m.—Get-together Party
7:00 p.m.—Banquet-Dance

SATURDAY, MAY 24th
9:30 a.m.—General Conference
Forum on Stock Preparation—Stock Preparation Project Committee
12:30 p.m.—Lunch where you will
2:00 p.m.—Members Business Meeting

LADIES' PROGRAM

Thursday, May 22nd
12:30 p.m.—Ladies' Luncheon
7:00 p.m.—Dinner in Marine Dining Room (Optional)

Friday, May 23rd
12:30 p.m.—Lunch where you will
2:30-400—Ladies' Bridge
6:00 pm.—Banquet-Dance

The Chemical Pulp Group has chosen for general discussion at the National meeting "Preparation and Treatment of Pulp After Cooking." This discussion will start with a brief resume of the operations processes and equipment involved and consist of panel members thoroughly familiar with the various phases of all stock preparation covered under this discussion title. Mr. R. H. Prince of Allis-Chalmers, who is Vice-Chairman of the group, will also act as panel moderator.

This discussion will be limited to sulphite, sulphate, soda and semi-chemical pulps, as far as stocks are concerned and will involve discussions regarding the operation, capacity, power requirements, costs, materials of construction and other pertinent subjects dealing with processes and equipment.

Members planning on attending this most informative meeting are urged to line up their questions well in advance in order to have them answered. Upon completion of full panel membership, the names of same will be published and will contain some of the outstanding men in the industry in their particular field. The meeting is scheduled for Friday morning, May 23, and promises to be one of the real highlights of the conventions.

GEORGE W. CRAIGIE
Plans Superintendents' Convention

Celanese Opens Office In British Columbia

VANCOUVER, B. C.—Administrative offices have been opened on the ground floor of the Brooksbank Building at Prince Rupert, B. C., by the Port Edward Celanese Company, Ltd., local division of the Celanese Corporation of America, which is planning to establish a $15,000,000 pulp mill at Watson Island, about 10 miles from Prince Rupert, B. C. E. R. Barr, formerly with the War Assets Corporation at Prince Rupert, has already moved into new offices and is acting as local representative for the company.

CPPA Technical Men Head for St. Andrews

MONTREAL—The Technical Section of the Canadian Pulp and Paper Association is holding its summer meeting at the Algonquin Hotel, St. Andrews-by-the-Sea, N. B., on June 11th, 12th, and 13th, 1947. It was decided to hold the meeting at St. Andrews, not only because of the recent formation of the Chaleur Branch in that district, but also because the meeting wil be closer to the Maritime and Newfoundland mills than has been the case in former years.

Group discussions are being arranged by the various Technical Section standing committees and tentatively will include discussions on the following subjects:

"A Practical Discussion on High Speed Machine Headbox Operation."
"Pitch Control."
"Unit Sub-stations."
"Infra-red Drying."
"Flash Drying of Bark."
"Drying of Paperboard."
"Morden Refiner Operation."
"Paperboard Machine Improvements."
"Screening."
"Re-use of White Water in the Groundwood mill."
"Pit Testing."
"Woods Operations."
"Uses for Sulphite Pulps."
"Installation, Development and Care of Linings for Digesters, Blowpits, Etc."
"Causticizing."
"Alkaline Pulping Penetration Studies."
"Kraft Process By-Products."
"Fibre Suspensions."

In addition, an official Technical Section Luncheon and the annual golf tournament will be included in the programme.

Non-members of the Technical Section, particularly those employed directly in the pulp and paper industry, are cordially invited to attend this summer meeting.

Reduced railway fares can be obtained for persons traveling from any point in Canada to the summer meeting. Identification certificates, which may be obtained from the Technical Section, Canadian Pulp & Paper Association offices, will enable those attending the meeting to procure such reduced fares for themselves and their families by presenting the certificate when tickets are purchased. A thirty-day return limit is placed on tickets purchased in this manner.

These reduced fares are applicable only in Canada. For delegates who are traveling from Newfoundland or the United States and who wish to take advantage of the reduced fares on Canadian lines, Canadian railway tickets must be purchased on arrival in Canada. Reduced fares can then be obtained by presenting the identification certificates to a Canadian railway ticket agent.

Container Shortage Brings Back Bottles

INDIANAPOLIS, Ind.—Demand for all lines of paper and paper products here continued heavy last week with no appreciable abatement likely, according to leaders in the trade. There likely would be more demand if the supplies were known to be adequate, but many users, because of high prices and inability to secure stocks are hesitant to order any ahead and are using every effort to find substitutes. This is particularly true in the container field.

Because of shortage of containers, the dairy field is turning back to bottles, with the exception of ice cream and some cheese products. At one time the paper container for milk appeared to be controling the field, with more and more dairies in the market. However, the trend now is back to the old glass bottle. Much the same is true of the brewery industry. At one time only one of the large breweries of the state continued to use wooden cases, all the other using heavy paper containers. Inability to secure these containers has caused a switch by a large brewery to the light-weight wooden case.

It is certain now that demand for building and roofing paper will be much larger than last year in spite of the increasing cost of construction. Most distributors here are starting the season with fair stocks.

A wide line of roofing, building paper and paper products for the home is being shown this week in the annual Home Show, which is the largest yet attempted in the 25 years of the annual showing.

Collections of waste paper here were reported rather low during the last week and warehouse stocks are being cleaned up daily. Prices remained strong and mill demand good. Much the same is true of the rag demand, with better grade rags getting the call.

American Tissue Mills Negotiate New Contract

HOLYOKE, Mass.—Representatives of Eagle Lodge of Papermakers have met with the management of the American Tissue Mills in the first of a series of conferences relating to the negotiation of a new work contract for employees at the Stony Brook and Pearl City divisions.

During the preliminary discussion the group discussed insurance policy concessions, checkoff system of dues payments, an increased vacation to two 48-hour weeks instead of one 40 and one 48-hour week and a reported 15 cents per hour increase. These requests will be studied by the American Tissue management and another meeting will be held on April 25 for further discussion.

Representing management were Judge Philip O'Brien, Benjamin F. Perkins, Jr., vice-president; J. Lewis Perkins, treasurer, and Atty. Bertha Dean, personnel manager. Spokesmen for the lodge were Edward M. Moore, international organizer; Andrew Beaton, financial secretary; Robert Cameron, president; and Edward Zakrewski, vice-president.

Brightwater Employees Get Wage Increase

ADAMS, Mass.—Provision of a five-cent-per-hour general increase and adjustments in wage rates ranging from an additional five cents to 13 cents per hour for employes of the Brightwater Paper Co. are contained in a closed shop agreement has been reached by the company and Local No. 12796, United Mine Workers of America as official bargaining agent for the employes.

The contract expires June 1, 1948, and agreement has been reached on all of its terms with the agreement ratified at a meeting of the union.

The contract also provides that all present employes of the company who are not members of the union must, as a condition of employment, become and remain members in good standing within the union within 30 days and all new employes, as a condition of employment, must become members of the union.

The agreement provides for a reopening clause on June 1, 1947 for negotiating on wages, vacations, holidays and other fringe benefits.

Hartig Sails on Saturnia For Walker-Goulard-Plehn

NEW YORK—Peter Hartig, manager of Walker Goulard Plehn Co., Inc., Eastern Division, is sailing on the S.S. Saturnia in order to visit old clients in Egypt, Palestine, Syria, Lebanon, Cyprus, Greece, Iraq, Turkey and Iran.

It has been a specialty of the company's Eastern Division to supply the match factories, cigarette factories, candy factories, as well as the printers, publishers and stationery stores with the products of the mills the company represents, and Mr. Hartig is making a survey of the possibilities which that part of the world is offering to the American paper exporter for a continuous large scale business.

Haloid Discloses Photo Print Paper

ROCHESTER, N. Y. — A new projection paper for portraits and salon prints was announced by Joseph C. Wilson, president of the Haloid Company. Called Portraya, it is notable for its warm tone, fine portrait scale and the fact it is susceptible of selenium and gold toning to a rich warm brown, according to Dr. John Dessauer, research director.

The new paper is available in white eggshell and antique textured ivory, and other surfaces are to be announced later.

Chicago Waste Brisk Rag Inventories Reduced

CHICAGO—Perhaps the high light of activity locally, centers around the brisk movement of waste paper which has been reported in the Chicago area during the past week. Springtime collections of waste paper rose in exact ratio to the improvement in the weather. Sources here reported heavy accumulations of materials. Some mills, it is said, are not buying paper as yet because they wish to use up old stocks before rebuilding reserves. Most mills are operating at capacity, however, and it is expected that all will be in the market in a very short time.

Some mills in this area were adversely affected by flood conditions but the market was not generally touched. All in all the outlook was construed as favorable with supplies sufficient to satisfy buyers and with paper operations running at a sufficiently high rate to insure a good demand for waste materials for some time to come. Prices showed no change from the preceding week. No. 1 news was reported at $25 a ton, $5 under the March price. No. 1 corrugated held at $36 a ton and No. 1 mixed at $20. Supplies of waste rags were said to be heavy but dealers were also reported to be reluctant to buy and mills were not accepting freely. Some sources indicated that inventories were being reduced because of prospects of heavy spring offerings of rags which might have a depressing effect on prices.

Toledo Box Plants Increase Wages

TOLEDO, O.—S. A. Stephens, international vice president of the AFL-Paper Box & Bag Workers, has announced wage increases ranging from eight to 12 cents for 415 employes of five Toledo paper box firms.

Approximately 125 employes of the Ottawa River Paper Box Company, who had threatened to strike, this week accepted a 12 cent hourly increase for women and eight cents for men, retroactive to December 1, 1946. The strike threat arose over the issue of the retroactive date.

The four other companies granted an increase of 12 cents an hour. Firms affected include: Spitzer Paper Box Company, S. H. Davis Paper Box Company, Toledo Paper Box Company, and Union Paper Box Company.

Cape Fear Distributers Get State Charter

WILMINGTON, N. C. — Capitalized at $200,000, Cape Fear Paper Company, Inc., of this city has just reecived a charter from the Secretary of State to buy and sell wrapping papers, envelopes, writing stationery, etc. Incorporators: L. H. Welsh, J. C. Wessell, Jr., and W. G. Cheney, all of Wilmington.

Sapeyes Hear Sherman Discuss Paper Problems

CHICAGO—The western division of the Salesmens Association of the Paper Industry held the second of a series of meetings recently on cooperation between sales executives and the manufacturing, jobbing and converter trade at the Hotel Sherman. While H. K. Snyder, president of the Central Waxed Paper Company, was supposed to talk at the closed session, he was unable to appear. His place was most adequately filled by C. C. Sherman, president of the H. P. Smith Paper Company, well known converters. Mr. Sherman, in an informal discussion, stressed the importance of mutual understanding and efforts between converters and mill salesmen, pointing out that everyone in the industry should be cognizant of the value of the customer as the one who, after all, "pays the bill." Sherman also was reported to have reminisced a bit about paper conditions twenty years ago and now, saying that he remembered, as a younger paper salesman, how the industry scoffed at the idea that Southern trees would ever be an important factor in the trade. He pointedly stressed the fact that times have indeed changed as the Southern end of the industry has become a potent factor in the over-all production of pulp.

Sherman was accompanied by V. C. Anderson, purchasing agent for the H. P. Smith Paper Company, who added some most interesting and pointed comments covering his analysis of the need for mutual efforts to keep the trade happy in an unusually exasperating period.

Kelloggs Enjoy Vacation By Land, Sea and Air

NEW YORK—Roy S. Kellogg, secretary-treasurer, Newprint Service Bureau, returned to his office this week after a winter exploring Florida, Cuba and the Virgin Islands by sea and air. Mr. and Mrs. Kellogg skippered their 38½ foot cruising ketch, Roon II, through the blue waters from Bradenton, Florida to various picturesque Cuban ports. An eight day flight from Florida to the Virgin Islands gave the Kelloggs a bird's-eye view of the region with stop-offs at Camaguei, Cuba; Port Au Prince; Cuidad Trujillio; San Juan, Puerto Rico and a local hop to the Virgin Islands. A return night flight from San Juan to Miami in four hours found the Kelloggs enjoying a turkey dinner with the moon shining on the clouds beneath them.

Larry Doyle Retires At Chatfield-Woods

PITTSBURGH, Pa.—W. F. "Larry" Doyle, vice-president and general manager of the Chatfield & Woods Company of Pennsylvania, will retire from active business May 1. Mr. Doyle has been associated with the company at Pittsburgh since 1920 and during the intervening years has played a prominent part in the development of the business. His friends will be interested to hear that he plans to spend an indefinite time in travel and later will reside in California.

Fred Chatfield, who has been associated with The Union Paper & Twine Company of Cleveland, will succeed him as general manager, and will assume his duties on May 1st.

C.P.A. Relaxes Control On Agave and Manila

WASHINGTON—The Civilian Production Administration amended its controls over Manila (abaca) and agave fibers to allow for their use as "extenders" in a wider range of cordage products, when such use is specifically authorized or directed by CPA. The amended controls also provide for directions to the Reconstruction Finance Corporation, to govern the time and quantities of deliveries of binder twine from stocks imported by RFC, and incorporate in the fiber order, M-84, the import restrictions on agave, cantalla, sisal and henequen fibers heretofore contained in CPA's General Imports Order, M-63.

Previously, order M-84 had restricted use of spinnable Manila fiber to the production of rope and four types of fishing net twine.

CPA said that current acute shortages of agave fiber, and not easement in Manila supplies, is responsible for the decision to authorize occasional wider use of the latter as an extender. The two fibers are interchangeable to some extent.

Coincidentally with amendment of M-84, CPA revised M-63 to eliminate mention from it of all cordage fibers. This leaves only tin under M-63 and it is contemplated that this order will be revoked as soon as changes are made in the tin order, M-43, to include M-63's import controls on the scarce metal.

Paper Plant Smoke Nuisance To Community

ADAMS, Mass.—Hearing has begun in the Adams district court before Atty. Rudolph J. Lewis of Pittsfield as master in a bill in equity brought by Gustave Malione and other residents of the Zylonite section of Adams against the Brightwater Paper Co.

In the action, the Zylonite residents petitioned superior court at Pittsfield for abatement of an alleged smoke nuisance that they contend is created by the Brightwater company and that they allege is detrimental to the neighborhood.

Buffam De-Inking Process Expands

CHICAGO—Buffam & Company reported this week that newsprint from de-inked waste paper will be produced in two eastern mills following that company's recent purchase of the "Sterling de-inking process." Frank Buffum, president of the company, made the announcement to newspaper trade circles. Production from the mills at Saugerties, N. Y. and Girard, Pa., will go to the newspapers which are financially interested in the enterprise, according to Buffam. If the process meets claims made for it by the American Industrial Company of Buffalo, which sold it to Buffam & Company, additional mills may be established in larger cities such as Chicago. The process is expected to be exceedingly helpful in lowering waste paper freight costs. Buffam & Company acquired the above mentioned eastern mills only a few months ago.

Meanwhile, the newspaper publisher trade circles reported that waste newspaper prices had "declined $5 a ton in the Chicago market April 1 and that the new at-the-mill price for No. 1 news is $25 a ton in truck loads and carlots." Brokers here are stating that the arrival of spring weather, heralding the peak movement of waste paper was responsible for the drop previously reported in the PAPER TRADE JOURNAL.

The same statement from the Inland Daily Press, reports that a Missouri paper mill could produce 8000 tons of newsprint annually from that state's present supply of short leaf pine. The information was relayed to the Missouri Press Association by Hugh Denny, director of the Missouri Resources and Development division.

Paper Imports, Exports Down February Pulp Exports Up

WASHINGTON — Exports from the United States of paper and paper manufactures in February had a value of $9,600,000 compared with $10,400,000 in January, and $8,100,000 in February, 1946, according to the Department of Commerce.

Imports for the same comparative months included newsprint, 522,000,000 pounds valued at $21,000,000 compared with 588,000,000 pounds valued at $23,800,000 and 478,000,000 pounds valued at $14,900,000; flax, hemp and ramie manufactures, $3,100,000 compared with $3,000,000 and $1,500,000; woodpulp, 161,000 tons valued at $16,000,000 compared with 168,000 tons valued at $15,900,000 and 142,000 tons valued at $9,700,000.

The United States exported in February 9,534 short tons of woodpulp, and in January, 6,475 short tons, valued respectively at $1,300,000 and $700,000, the Department reported.

FINANCE

Riegel Reports Sales At 20 Million in 1946

NEW YORK — Riegel Paper Corporation had sales of $20,085,763 in 1946 compared with $15,625,611 in 1945. The company's mills at Milford, Warren Glen, Hughesville, and Riegelsville, all in New Jersey, produced 86,000 tons of glassine, greaseproof, and special industrial papers, an increase of 17½ percent over production for the year before.

Net profit before taxes in 1946 was $1,777,135, and the net profit after taxes $1,105,135. The comparable figures in 1945 were $991,217 and $531,217. Earnings per share after taxes amounted to $4.53 in 1946 and $2.18 in 1945. The company paid dividends of $1.20 per share in 1946 against $1.10 the previous year.

The working capital position at the end of 1946 showed current assets of $6,741,629 against current liabilities of $2,336,472. Net working capital was $4,405,158 compared with $4,285,654 on December 31, 1945.

During 1946 work was begun on maintenance, modernization, and expansion programs deferred by the war. The majority of these projects should be completed early in 1948. They include installation of a new paper machine at the Milford mill for the production of glassine and greaseproof papers and the expansion of the steam and power plant there. A total of some $3,000,000 is involved in these and other capital items, to be spent during 1947 and 1948. This program will increase Riegel's glassine and greaseproof capacity about 20 percent and will reduce cost of manufacture substantially. Present glassine equipment has been operating seven days a week for the past six years, and some additions and some replacements are urgently required.

Taking a longer view of necessary capital expenditures, it is believed the pulp outlook will eventually make advisable the construction of a mill at Acme, N. C., adjacent to the 140,000 acres of timberland purchased in 1937. Pulp from this mill would supply a portion of the company requirements, in addition to pulp now purchased under long term contract and in the open market.

The most important items of the company's production continue to be glassine and greaseproof papers. These are used primarily in the protective packaging of foods, such as cereals, coffee, bakery products, and candy. They are waxed, laminated, coated, and printed for various specialized applications. Riegel also produced a large tonnage of rope, jute, kraft, and other specialty papers for such end uses as tag stock, photographic wrapper, pattern paper, gaskets, cable insulation, calender rolls, tympan paper, printing bristols, anti-corrosive paper, flour, sacks, etc.

Marathon Declares Dividend

ROTHSCHILD, Wis.—Directors of the Marathon Corporation have declared a regular quarterly dividend of 25 cents a share on the company's common stock, payable May 20, 1947, to stockholders of record April 30.

Great Lakes Paper Plans Capital Change

TORONTO, Ont.—When Great Lakes Paper Co. holds its annual meeting on May 12, shareholders will be asked to approve a plan of capital arrangement which has already been unanimously approved by the directors. Hon. W. Earl Rowe, the president, states the directors believe the arrangement merits the support and approval of every class of interests.

The proposed arrangement provides:

1. The 100,000 issued and outstanding no par value common shares to be sub-divided on a four-for-one basis into 400,000 new no par value common shares.

2. Half of the new common shares to be transferred by the holders to the holders of the Class A shares on the basis of two new common to go to each holder of one Class A share.

3. As a result, the holder of each one present common will receive two of the new common.

4. Class A shares will no longer be participating. (Full recompense for giving up the participating feature is supplied by giving them the equivalent right to dividends through new common shares.)

5. Class A shares are to be redeemable in whole or in part on at least 30 days' notice at $52.50 a share and accrued dividends.

6. A sinking fund equal to 7% of the balance of net operating profits available for dividends will be set up for the redemption of Class A preference shares in each fiscal year commencing with that ending December 31st, 1948, providing there are no dividend arrears on either the A or B shares.

7. Capital of the company to be in-

FINANCIAL RECORD OF THE WEEK

New York Stock Exchange

High, Low and Last for Week Ending April 19, 1947

STOCKS

	High	Low	Last
A. P. W.	4⅞	4⅝	4⅝
Armstrong Cork Co.	44¼	42½	43
Armstrong Cork Co., pf.	105	104¼	104¼
Celotex Corp.	27	25	26⅛
Celotex Corp., pf.	21	20¾	21
Certain-Teed Products Corp.	15¼	14¼	15
Certain-Teed Products Corp., pf.	....	....	....
Champion Paper & Fibre Co.	22¼	20¼	22¼
Champion Paper & Fibre Co., pf.	110¼	110	110¼
Congoleum Nairn Co.	26	24¾	25¼
Container Corp. of America	40	38	40
Crown Zellerbach Co.	27⅜	26⅞	27½
Crown Zellerbach Co., pf. 4.20	106	105½	106
Crown Zellerbach Co., 4 pf. 4	113½	113	113
Dixie Cup Co.	28½	27½	28
Dixie Cup Co. A	53½	51	51
Flintkote Co.	29	27⅛	28⅜
Flintkote Co., pf.	108	107½	108
Robert Gair	6¼	5⅞	6
Robert Gair, pf.	20¼	20	20¼
International Paper Co.	44¼	41⅜	43
International Paper Co., pf.	103	102½	102½
Johns Manville Corp.	120⅞	115	116
Johns Manville Corp., pf.	....	....	....
Kimberly-Clark Corp.	24¼	23⅞	24
Kimberly-Clark Corp., pf.	107¼	107	107
Mac Andrews & Forbes	35½	35½	35½
Mac Andrews & Forbes, pf.	....	....	....
Marathon Corp.	23	21⅞	21⅞
Mead Corp.	20¼	19⅜	19¼
Mead Corp., pf. 4¼	103⅞	102½	102½
Mead Corp., pf. 2	48	47½	48
National Container Corp.	36⅜	34¼	35¼
Paraffine Companies, Inc.	71⅛	67½	67½
Paraffine Companies, Inc., pf.	108¼	108¼	108¼
Rayonier, Inc.	21	19½	19½
Rayonier, Inc., pf.	37¼	36¾	37
Ruberoid Co.	46½	43½	43½
Scott Paper Co.	44	43½	43¾
Scott Paper Co., pf.	99½	99	99
Sutherland Paper Co.	40⅞	39⅜	39½
Union Bag & Paper Corp.	30¼	29	29⅞
United Paperboard Co.	14¼	13⅜	14
U. S. Gypsum Co.	97	92	96
U. S. Gypsum Co., pf. 7	196	196	196
West Virginia Pulp & Paper Co.	38	36	36¼
West Virginia Pulp & Paper Co., pf.	113	113	113

BONDS

Abitibi Pulp & Paper Co., 5s '53	....	....	....
Celotex Corp. 3¾s '60	....	....	....
Certain-Teed Products Corp. 5½s '53	....	....	....
Champion Paper & Fibre Co. 3s '65	103	103	103
Mead Corp. 3s '66	....	....	....

New York Curb Exchange

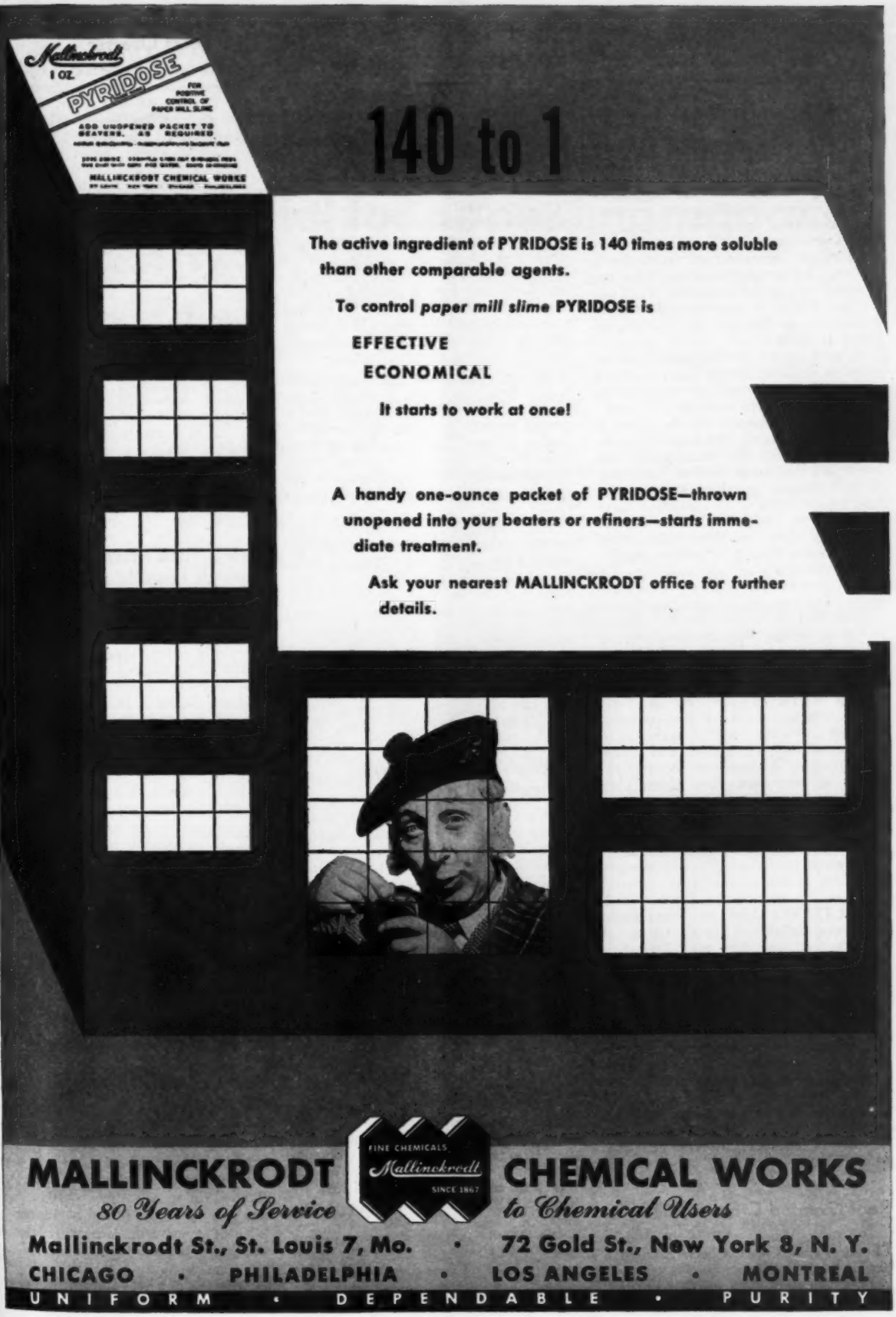
High, Low and Last for Week Ending April 19, 1947

STOCKS

	High	Low	Last
Great Northern Paper Co.	42	40½	42
Hummel Ross Fibre Corp.	....	....	....
St. Regis Paper Co.	9¾	8¾	8⅞
Taggart Corp.	9	8½	9

BONDS

American Writing Paper Co. 6s '61	101	101	101


Mallinckrodt
1 OZ.
PYRIDOSE
FOR POSITIVE CONTROL OF PAPER MILL SLIME
ADD UNOPENED PACKET TO BEATERS, AS REQUIRED
MALLINCKRODT CHEMICAL WORKS
140 to 1
The active ingredient of PYRIDOSE is 140 times more soluble than other comparable agents.
To control paper mill slime PYRIDOSE is
EFFECTIVE
ECONOMICAL
It starts to work at once!
A handy one-ounce packet of PYRIDOSE—thrown unopened into your beaters or refiners—starts immediate treatment.
Ask your nearest MALLINCKRODT office for further details.
MALLINCKRODT CHEMICAL WORKS
80 Years of Service
FINE CHEMICALS
Mallinckrodt
SINCE 1867
to Chemical Users
Mallinckrodt St., St. Louis 7, Mo. • 72 Gold St., New York 8, N. Y.
CHICAGO • PHILADELPHIA • LOS ANGELES • MONTREAL
UNIFORM • DEPENDABLE • PURITY

creased by the creation of an additional 100,000 no par value common shares.

8. Holders of Class A or Class B preference shares shall not be entitled to receive notice of, or attend, or vote at any meeting of the shareholders, except in certain specified cases.

In a letter to shareholders accompanying the plan, President Rowe states that the present provisions relating to dividends on the company's shares makes it difficult to appraise the investment qualities of Class A shares or to initiate a satisfactory dividend policy in respect of the common shares. The arrangement provides for payment of regular quarterly dividends on the A and B shares, with special provisions to protect the holders of Class B shares.

At present, no participating dividend could be declared on the Class A shares and no dividend could be declared on the common shares until the full year's preferential dividends on the Class A and Class B shares had been paid, Mr. Rowe states. By the arrangement outlined, all dividends (other than preferred) will be payable as at present, half to the holders of common shares and half to the holders of Class A shares by virtue of their holdings of new common shares. It will be possible to pay dividends on the new common at any time as long as there are no preferred arrears, Mr. Rowe points out.

Attention is drawn to the change in voting rights, the provisions relating to purchase and redemption of Class A shares and the creation of a sinking fund.

"The arrangement provides for future capital needs of the company through increase in the number of authorized common shares and places the company's securities before the public in more attractive form," Mr. Rowe states.

Commenting on the proposed arrangement, the Financial Post, Toronto, says the new capital arrangement seems to have been well thought out. "An objection might be raised," it states, "to making the Class A callable at $52.50 a share, as it was formerly non-callable. Some Class A holders feel that they may lose their preferred investment by a future call. But, on the other side, it is argued that even if the Class A were redeemed it would benefit the holders of the new common. Present preferred holders would thus benefit if they retain their new common. On the basis of the current market of $29 for the present common share and of $74 for the Class A shares, new common shares should sell about $14.50 a share and the new Class A preferred at about $45 a share.

Roof Granted Crocker Mill

HOLYOKE, Mass. — The Crocker-McElwain Paper Co. has been granted a permit at the city engineer's office to replace the roof on a part of its mill. The work will cost $4500.

St. Lawrence Group Reports on Quarter

MONTREAL—The management of St. Lawrence Corp. this week released first quarter earnings of three operating subsidiary companies and announced dividend actions taken.

Gross earnings of the three subsidiaries for the first three months of this year were sharply higher than those of the comparable quarter of 1946.

St. Lawrence Paper Mills Company, Ltd., declared a dividend of $3 per share on the preferred, representing payments for the second quarter, with half of this amount to be applied to reduction of arrears. This action will cut arrears from $68.75 a share at the end of 1948 to $66.25 a share.

Lake St. John Power & Paper Company, Ltd., declared a dividend of $1.50 a share on the common, also a second quarter payment. St. Lawrence Paper Mills Company, Ltd., will receive 87 per cent of this disbursement. Brompton Pulp & Paper Company declared a second quarter dividend of 25c a share.

The earnings report showed first quarter gross of $846,281 for Lake St. Johns Power & Paper Company, Ltd., compared with $531,207 in the first three months of 1946, while St. Lawrence Paper Mills Company, Ltd., had a gross of $883,888 before receipt of dividends from the Lake St. Johns company, compared with $507,752 last year. Brompton Pulp & Paper Company, Ltd., reported gross earnings of $757,519 for the first quarter of 1947, compared with $53,033 in 1946.

Gypsum's Texas Output Allocated to Relief

BUFFALO, N. Y.—Melvin H. Baker, president of the National Gypsum Company, announced the firm has placed the entire gypsum board output of its Rotan, Tex., plant at the disposal of Gov. Beauford H. Jester of Texas to relieve the housing shortage at stricken Texas City.

Mr. Baker said the plant's production is at the rate of about 200 houses a day. He expressed confidence that customers awaiting material from the plant will understand and "forego shipments in this crisis."

Gummed Products Starts Plant Enlargement

TROY, O.—Work has started on a $500,000 construction program to add two new buildings to the Gummed Products Company plant here. Ground was broken for the new additions by Roth F. Herrlinger, company president.

One of the country's largest manufacturers of gummed paper and cloth products, the 33-year-old concern plans increased production as soon as the additions are completed.

Johns Manville Reports Its Biggest Quarter

NEW YORK—Reporting on operations of Johns-Manville Corporation for the first quarter of this year, Lewis H. Brown, chairman of the board, last week declared that production as measured by sales was the highest for any first quarter in the company's history. Sales for the three months were $29,787,458, compared with $12,955,804 in 1946. Consolidated earnings were $2,251,224, equal to $2.31 a share, compared with $2,584,919 earned in the preceding quarter and with a net loss of $796,873 in the first quarter of last year. The loss for that period, Mr. Brown said, was due to strikes at the company's two largest plants.

"Compared with 1940," Mr. Brown said, "Johns-Manville has greatly increased production in a number of building material products. Asphalt roofings are being produced at a rate half again as much as in 1940; asbestos shingles, two and a half times as much, and rock wool, about four times as much. Since 1941, Johns-Manville building material prices have risen on the average only 15.3 percent."

New Jarisch Machinery Expands Local Markets

NORTH ADAMS, Mass.—Installation of new machinery at the plant of the Henry Jarisch, Jr., Corp., manufacturers of paper boxes, will enable the company to expand its local markets, and "perhaps be of some service to the city of North Adams, itself," Albert Jarisch has announced.

Jarisch, who is directing the reconversion program of the firm, said officials hope the new machinery will make it possible to manufacture textile boards and set-up boxes which would find an outlet in local industries, as well as in outside markets.

"Frankly," he said, "we are doing a little experimenting, and the whole thing is a reconversion problem that will have to be worked out."

The new machinery, he said, has been acquired gradually in the past few months, but some of the older equipment is being retained. The building itself has been renovated entirely, Jarisch added. He declined to divulge the cost of the new machinery.

New Container Issue

CHICAGO—This week a syndicate headed by Kidder, Peabody & Company, offered 100,000 shares of Container Corporation of America 4 per cent preferred stock. Initially it was planned that the new issue would carry a sinking fund, beginning in 1950, of 2 per cent. However, late last week, the amount to be redeemed was increased to 3 per cent. Funds are to be used to finance plant construction and an over-all expansion program.

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Powell River Net Increased a Third

VANCOUVER, B. C.—Profits of the Powell River Company Ltd. during 1946 increased by approximately one-third according to figures revealed in the annual report.

Net profits were $3,440,378, compared with $2,900,012 the previous year. This was the equivalent of $2.56 per ordinary share, compared with amended profits of $2.17 for 1945. Dividend payment for the year was $1.60 per share, compared to $1.05 in 1945. Payments totalled $2,151,512, the remainder being undistributed profits.

"Demands for all products of the company continues to be very strong," the report states. "Sales are limited only by the company's ability to produce."

Net working capital at the year-end amounted to $9,354,837. The ratio of current assets to current liabilities shows 6.1 to 1.

Production of newsprint increased in 1946 by 38,699 tons to 26,488 tons; sulphite pulp and other products were down 12,034 tons to 40,236 tons. This latter reduction was due to shortage of logs occasioned by a strike in the logging industry.

Sales of newsprint produced by the company in 1946 were up 32,952 tons to 221,282 tons as against 188,330 in 1945. In 1945 an additional 38,943 tons were purchased through the Canadian Government Newsprint Pool, which did not operate in 1946. Of the total newsprint sold, 12 per cent went to Canadian consumers. Sales of sulphite pulp and other products were down 17,904 tons to 35,542 tons.

The report also states: "At the close of the year progress on the diversification and development program was proceeding satisfactorily." The large hydraulic log barker came into partial operation in December, and when this unit is brought into full operation it will effect considerable wood savings. The hydro-electric development is well under way and should be completed during 1947.

A contract has been awarded for the purchase and installation of another newsprint machine which will be of the most modern type designed for high speed operation. About 90 per cent of all shareholders are Canadian, owning approximately 50 per cent of the total outstanding shares.

Windsor Locks Strike Ends

WINDSOR LOCKS, Conn.—A wildcat strike by 60 unorganized employes of the Windsor Locks Paper Company has ended after the management agreed to consider a 15-cent-an-hour wage increase demand.

Sprout-Waldron Expands Its Sales Organization

MUNCY, Pa.—H. M. Soars, president and general manager of Sprout, Waldron & Company, manufacturing engineers, has named a new territorial sales manager and added several factory-trained representatives to the regular sales staff. With this expanded organization, Sprout-Waldron hopes to be in a much better position to serve its friends and customers in various sections of the country.

William J. Geist, head of the tobacco machinery division during the past two years, now has the added assignment of territorial sales manager. He will be responsible for the training of new district sales representatives and will coordinate existing general sales offices.

Harry C. Lee has been appointed district general sales representative in Virginia, North and South Carolina. H. T. Young has been assigned adjoining counties in Pennsylvania, Delaware, and New Jersey; and Randall Bennett will be active in New York State outside of the metropolitan area.

All of these men have received a thorough home office and factory training.

Milprint Opens Bag Plant On the West Coast

MILWAUKEE, Wis.—Milprint, Inc., discloses the completion of its new West Coast specialty bag plant at Vancouver, Washington. Charles A. Westberg, of Milwaukee, has been selected to direct the activities of the plant which, at first, will concentrate on the printing and waxing of Glassine paper bags of the type produced for potato chips. Later on, Cellophane bags are to be added. When full operations are under way, it is expected that forty to one hundred people will be employed on two shifts.

ADSCO Bulletin Gives Metering Facts

NORTH TONAWANDA, N. Y.—A new 12-page, illustrated ADSCO Bulletin No. 35-80B on the ADSCO Rotary Condensation Meter gives complete details of construction and installation on seven sizes of meters with capacities from 250-12,000 pounds of condensate per hour as manufactured by the American District Steam Company. This meter is widely used by district heating companies, and industrial plants to determine steam consumption per building or by departments.

Parsons Starts Addition

HOLYOKE, Mass.—A permit has been taken out at the city engineer's office by the Parsons Paper Company of Holyoke to build an addition on its paper-making building. The work will cost $100,000.

Scott Absorbs Costs, Profits Up Slightly

CHESTER, Pa.—Scott Paper Company reports that, after provision for preferred dividend, consolidated net earnings of the company for the three months ended March 29, 1947, were $572,272, equivalent to 65 cents per common share based on the 871,847 shares outstanding. This compares with $410,564 for the corresponding period ended March 30, 1946, equivalent to 51 cents per common share based on the 804,782 common shares then outstanding.

Thomas B. McCabe, president, pointed out that the company has absorbed a very substantial portion of higher payrolls and increased cost of materials in an effort to prevent a further inflation of the consumer's living expenses. The prices for its products are, on the average, only 26 percent above the level at the end of 1941, whereas the average cost of its purchased wood pulp alone has increased more than 100 percent over the same period. The company's products generally continue to be in very short supply due to the great demand for its brands.

The company is fortunate in that its wholly owned subsidiaries and Brunswick Pulp & Paper Company, of which it owns 50 percent of the capital stock, supply approximately 50 percent of the pulp requirements for Scott products on the basis of full operation. Additional tonnage is covered by long term cost-plus contracts. Contracts with other pulp producers supplement these sources and all of the pulp requirements of the company and its subsidiaries have already been covered through 1947.

Preferred Utilities Offers Steam Generator Booklet

NEW YORK — Recently published by Preferred Utilities Manufacturing Corp., 1860 Broadway, is a two-color, eight-page bulletin describing in detail Preferred Unit Steam Generators. These self-contained, oil-fired, steam generating plants of four-pass, induced draft construction range in size from 40 to 500 H.P. They operate fully automatically even on heavy oil with minimum guaranteed thermal efficiencies of 80 per cent.

International Talc Elects

GOUVERNEUR, N. Y. — The annual meeting of the International Talc Corporation, held this week, resulted in the election of Robert H. McCarthy as president. Other officials for the ensuing year include S. H. Tuttle, of Plainfield, N. J., vice-president and secretary; S. J. McCrinlick, of Brooklyn, treasurer; and John J. McNamee, of New York, assistant treasurer.

Stainless Steel PROTECTION with Clad Steel ECONOMY

Stock inlet of high production, wide stock paper machine, for kraft paper, built by Valley Iron Works Co., Appleton, Wisconsin, of a Lukens Clad Steel, 5/16" thick. The clad metal was chosen in order to keep the internal contours of the equipment smooth and free from the interfering action of rust and organic growths. It was also of equal importance in preventing contamination of the sheet by rust or slime spots.

You can save money on equipment requiring the corrosion resistance and product protection of stainless steel by use of economical Lukens Stainless-Clad Steels. Other advantages include:

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- ★ **Backed by over 17 years' experience in the production of clad steels, starting with Lukens Nickel-Clad Steel, and now also including Inconel-Clad, Monel-Clad and Stainless-Clad Steels.**

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Dyke Tells Problems Of Board Industry

ABSECON, N. J.—President George E. Dyke of the National Paperboard Association found plenty of problems and some signs of encouragement before the industry in his annual report at the NPA meeting here earlier this month.

"The labor problem," he said, "is still with us and it is of course one of the greatest problems. But I nevertheless feel that the strikes that are now taking place are minor in comparison with those we had last year at about this time and that there has been a definite improvement in the labor situation. I think that the whole economic background as now developing, as well as the political background, will tend to force a more realistic approach to the labor problems, both on the part of labor and of management. I am convinced that the people who represent labor have access to the same material that we have and they have shown ability to appraise it properly.

"I cannot help but feel that labor will have to come to an appreciation of the trend which is developing and that it will indicate to them the route which they must follow if they are to be successful and not lose the things which they have gained, and that there must be a much different attitude as far as their relationship with industry is concerned.

"The shortage of paperboard in recent years has emphasized its essentiality and the diversity of its use. During the war years, 85 percent of all "packageable" war materials were carried in paperboard containers of one kind or another. Every household is a consumer of paperboard products. Every year packaging becomes indispensable to more and more industries.

"As an industry, let us remember that if prices go too high, we can price ourselves out of important markets.

"Paperboard production for 1946 was approximately 8,450,000 tons or 16,900,000,000 pounds.

"Based on a population of 140 million persons, the per capita consumption of paperboard in 1946 was approximately 121 pounds, or 4/5 the per capita consumption the meat industry is looking forward to in 1947.

"I wonder how many of us realize that the per capita consumption of paperboard is 4/5 as large as the per capita consumption of meat, even with the relatively high current consumption of beef.

"During recent months representatives of National Paperboard Association along with representatives of the Fourdrinier Kraft Board Institute, the Fibre Box Association, the Solid Fibre Box Group, the Shipping Container Institute, the Jute Container Group, and the Corrugating Material Group, have been meeting with the representatives of the railroads in an effort to develop improved specifications for fibre boxes for freight shipments. In connection with a study of the Rule 41 subject, the fibre box and paperboard industries created a Technical Committee which Committee has functioned most efficiently.

"The railroad representatives who met with our industries felt that they were justified in demanding that the provisions of Rule 41 be strengthened. The Eastern railroads have suggested as a basis for improving the fibre box specifications the approval of the specifications they proposed in their Rule 41 Docket of May 14, 1946, but not including a compression test requirement, leaving the matter of compression test for further study by the railroad Committee and the fibre box and containerboard industry.

"A statement was filed in behalf of the United States Manufacturers of Paperboard, with the Committee for Reciprocity Information at Washington, D. C., on December 18, 1946. This statement, which was prepared under the guidance of Mr. Warren B. Bullock, of 122 East 42nd Street, New York, N. Y., who serves your Association on import tariff matters, covers the position of the paperboard industry, which is in opposition to tariff reductions on the several grades of paperboard being considered for tariff reduction.

"Under the Trade Agreement Extension Act of 1945, which extended the Reciprocal Trade Agreement Law for three more years, the President of the United States was given power to reduce tariffs 'another 50 percent below the rates prevailing on January 1, 1945,' or to a figure as low as 25 percent of the rates under the Smoot-Hawley Schedule of 1930.

"We called upon Henry D. Schmidt, President, Schmidt & Ault Paper Co., York, Pa., for help and he appeared personally before the Committee on Reciprocity Information at Washington, D. C., on Thursday, January 23, 1947. Mr. Schmidt made a verbal presentation of the paperboard industry's case at which he described paperboard and covered the overall problems of the paperboard industry in connection with the grades of paperboard on which reductions were being considered.

"Mr. Schmidt made a most able and convincing presentation of the paperboard industry's case."

"I feel that we should keep reminding ourselves that although our industry has enjoyed an abnormally high demand for its products and practically all manufacturers have enough orders on hand for all they can produce in the foreseeable future, there is no guarantee that this situation will continue or that orders on hand are always translated into sales. In the past years we have seen the bank of orders melt away, suddenly and

(Continued on page 50)

Champion Directors Inspect Canton Mill

CANTON, N. C.—Members of the board of directors of the Champion Paper and Fibre company and a number of invited guests, most of whom were connected with the building and installation of the companion to the world's largest white paper-making machine, came last week to see the machine in operation and to hold the first meeting of the board of directors to be held here since the local division was established early in this century.

In addition to observing the huge papermaking machine in operation, members of the board and their guests went through the remainder of the plant and toured the yards on a flat car equipped with seats and a canopy and pulled by the company's new diesel locomotive, the only one in Western North Carolina. Stops were made to view some of the work being done in connection with the company's post-war expansion program at Canton, and lunch was served in the recently-completed cafeteria.

Included among the guests were Andrew Spiegelhalter, president of Pusey-Jones corporation, which built the machine; Ralph Johnston, vice-president of the Pusey-Jones corporation; Chester H. Lang, vice-president of the General Electric company, which supplied the electrical equipment, and Bill Cronkhite, of the industrial sales division of the General Electric company.

Most of the morning was spent observing the new machine and other papermaking machines in operation. The new unit is known as "No. 11" and is a companion to "No. 12" which prior to the installation of the new equipment was the largest white paper machine in the country.

"No. 11" and "No. 12" have the same deakel and are alike in most respects, but "No. 11" contains a number of improvements.

It has a wire width of 245 inches, a capacity of approximately 200 tons in 24 hours, a speed of approximately 1,300 feet per minute, and a maximum deakel (width of finished paper) of 226 inches.

During the visit, it was running on 20-pound tubized bond and was turning it out at the rate of about seven tons an hour.

The entire day's program was of an informal nature with the guests being conducted on the tour by officials of the company.

Following the board meeting, members of the board and guests went to the club at Lake Logan where they were guests of Reuben B. Robertson, president of the company.

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Bird Machine Adds Jenkins and Tipka

SOUTH WALPOLE, Mass.—Alexander Jenkins, Jr., and Vernon L. Tipka have joined the Bird Machine Company organization.

Mr. Jenkins acquired extensive knowledge of and experience with the procurement of pulp and paper mill machinery and equipment, as purchasing agent for Hollingsworth & Whitney. His activities in this connection included the period in which the Chicksaw Mill at Mobile, Ala., was built and equipped. This background is expected to prove of value in his contacts with other mills in the Eastern territory.

A graduate of Northeastern University, Mr. Jenkins acquired engineering experience with the Merrimac Chemical Company (now Monsanto), with the engineering firm of George P. Carver, and with the Lamson Company prior to his association with Hollingsworth & Whitney Company. He has many friends in the mills and among the suppliers.

Mr. Tipka started his career in the industry with the Crown-Zellerbach Corporation and was with that organization for a number of years. Later he was with the Hawley Pulp & Paper Company, and he became mill maanger of the Paper Corporation of America at Cheboygan.

Mr. Tipka was at one time associated with the Package Research & Development Laboratory. During the war he served with the United States Army, Quartermaster General's Office on fine paper procurement. Later he became assistant chief of the paper and paperboard branch of the Civilian Production Administration in Washington. His wide acquaintance in the industry may be traced in part to his many years of active membership in T. A. P. P. I. and in the American Pulp and Paper Mill Supertendents Association.

After spending some time at South Walpole, Mr. Tipka will be associated with Bird Machine Company's Evanston, Illinois, office in a sales capacity.

Hooker Employes Sign Two-Year Agreement

NIAGARA FALLS, N. Y. — President John Burden of the Niagara Hooker Employes union announced the signing of a two-year labor agreement at the Niagara Falls plant with the Hooker Electro-Chemical Company, believed, he said, to be the first of its kind ever negotiated in the history of collective bargaining on the Niagara frontier.

Mr. Burden listed the following benefits for all hourly paid employes at the plant, retroactive to March 11, 1947. The present vacation plan has been extended to three weeks for 15 years, and four weeks for 25 years' service. An increase of seven cents an hour on shift differential which now totals 14 cents. Eight hours' pay for six national holidays, double time when worked. Time and one-half for Saturday and Sunday, as such for day workers and relief shift men, and a four-hour call-in pay on holidays.

Other members of the negotiating committee were Joseph Schiavi, secretary; Archibald Forster, treasurer; Anthony Bellegia, Joseph Martin and John Fleming, of the Union. Representing management of the Hooker Electro-chemical Company were Bjarne Klaussen, works manager; Hiram B. Young, plant superintendent; Frank W. Dennis, personnel director; Ansley Wilcox II, secretary of the company; and Alton V. Thorpe, personnel department.

Pennsalt Names Ott To Research Post

PHILADELPHIA — Edwin M. Ott, chemical engineer in the Market Research Department of the Pennsylvania Salt Manufacturing Company, has been named assistant manager of Market Research by George T. Collins. Mr. Ott assumes the position vacated when Mr. Collins was named manager of the Department last fall.

The new assistant manager joined the Market Research Department when he came to Pennsalt in 1940 from the Gulf Research and Development Company. He entered the army in January, 1942, and served four years in the Chemical Warfare Service at Edgewood Arsenal. Separated as a Captain in February, 1946, he rejoined Pennsalt and the Market Research Department. In this department he has been engaged in investigating the Company's opportunities in new products and expansion of products already being manufactured.

Mr. Ott is a graduate of Drexel Institute of Technology with a degree of Bachelor of Science in Chemical Engineering. He is a member of the Chemical Market Research Association, American Chemical Society and the Drexel Varsity Club.

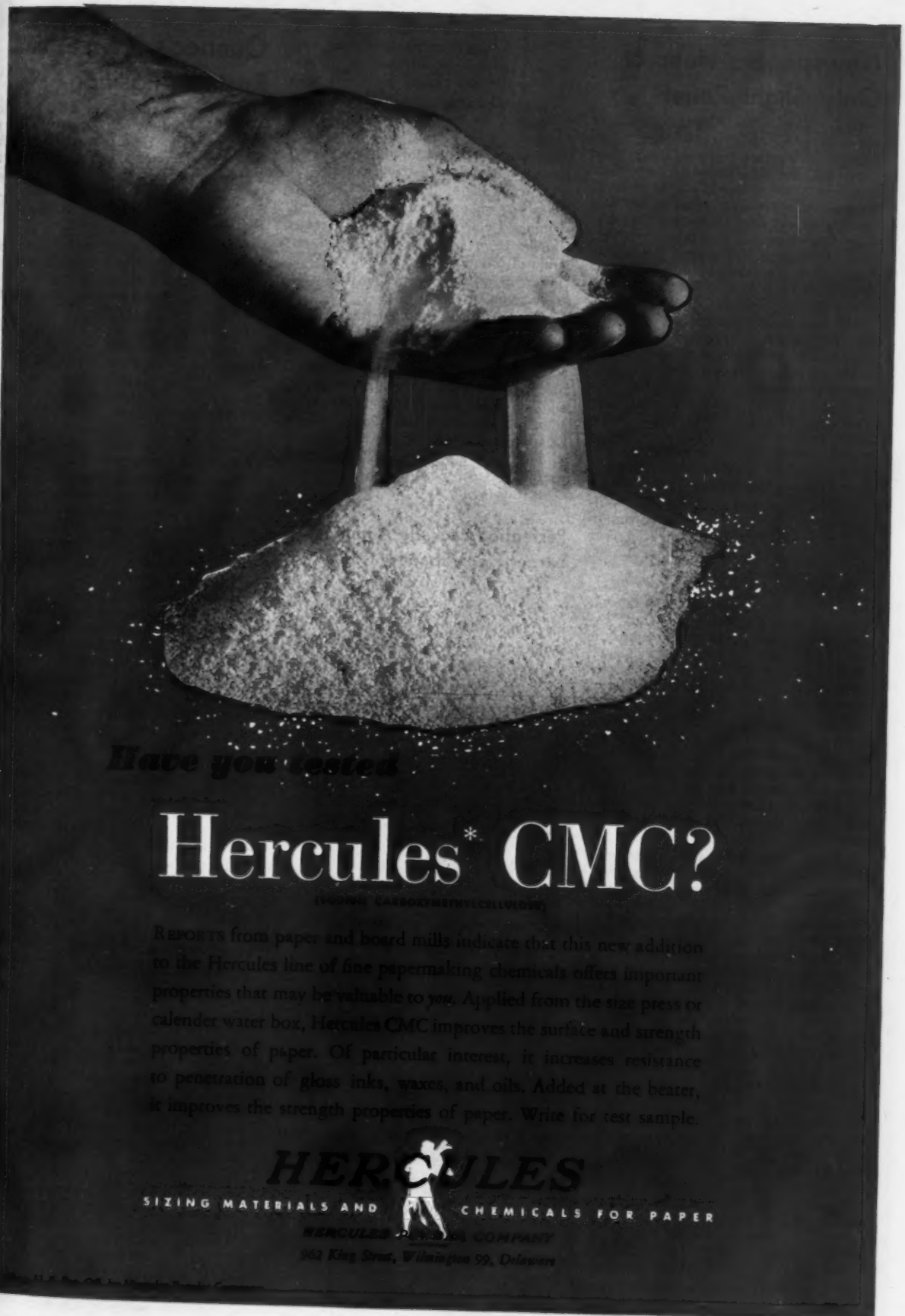
Arthur F. Bixby, heavy chemicals salesman in the Philadelphia office of the Pennsylvania Salt Manufacturing Company for the past nine years, has been transferred to the Pittsburgh office, George B. Beitzel, Vice-President in Charge of Sales, announced.

Mr. Bixby takes the place of C. W. Dermitt, who recently was transferred to Cincinnati to become District Sales Manager. In Pittsburgh Mr. Bixby will be associated with Mr. William Snelsire, District Sales Manager there.

Mill Experts Join Bird Machine Staff

(Left)—ALEXANDER JENKINS, JR.

(Right)—VERNON L. TIPKA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Newspapers Hear of Only Slight Relief

NEW YORK—Newspaper publishers were warned this week that even though newsprint supplies for this year will be somewhat greater than last year, there still will not be enough to meet the growing demand in this country at any time in the near future. This was given in a summary report to the American Newspaper Publishers Association, meeting at the Waldorf-Astoria, by Cranston Williams, general manager of A.N.P.A.

The continued newsprint shortage, and the problems resulting from it, dominated the publishers' discussions at the opening session of the sixty-first annual convention of the A.N.P.A. An increasing trend toward newspaper ownership of radio stations, and circulation rates and problems, were other topics extensively reviewed at the meeting, which was devoted yesterday to problems of the smaller newspapers.

In his newsprint forecast Mr. Williams said that last year's consumption was 4,200,000 tons, and this year "we will be lucky to get about 275,000 tons more."

Mr. Williams predicted that Canada would produce perhaps 200,000 tons more, of which this country could expect to get about 80 percent on the basis of past allocations. About 75,000 tons more might come from Finland, and another 5,000 tons from Sweden, he said.

Arthur P. Irving, vice-president and general manager of "The Glen Falls (N. Y.) Post-Star and Times," who presided at yesterday's session for publishers of newspapers of less than 50,000 circulation, told the publishers that they would have "to face the facts."

"There is unfortunately nothing to indicate that the supply of this precious commodity will equal the demand at any time in the near future," Mr. Irving said. "I think we may well face the facts, which are, in effect, that there is not enough newsprint to supply every newspaper with all the newsprint it wants and that all the complaints and all the appeals that can be made to Congress will not produce newsprint when there is not any. Publishers must make up their minds to meet that situation in a realistic way.

"Probably I need not invite your attention to the added distress caused by a combination involving publishers not building up their inventories to a safe point, the box-car shortage, and weather conditions that have prevailed in Canada. I think you will agree with me that publishers should certainly take all possible steps not to let a similar situation arise during the coming winter."

Williams said "political pressure" was being exerted to restore rationing but that "those best informed believe it would be futile."

"Not a single newspaper has suspended publication for lack of newsprint as the sole cause," Williams said.

"Controlling the use does not make newsprint available automatically to those not now getting all they want," the report said. "Rationing would not restore adequate distribution to the user from the mill through the merchant, or jobber, or distributor."

James Lyons, 22, Boston University student from Peabody, Mass., was announced today by the Publishers Association as winner of the sixth annual monograph contest.

Mr. Williams explained that American production was declining, chiefly because some of the pulp paper mills were converting from the manufacture of newsprint to magazine paper, and no new newsprint plants were being projected. Increasing world-wide competition for newsprint was evident on every hand, he added, with England as the next biggest consumer after this country.

Perfection Package Acquires Larger Floor Space

CHICAGO — The Perfection Paper Package Manufacturing Corporation has bought the two-story industrial building at the southwest corner of N. Oakley Boulevard and W. Erie Street, containing 60,000 square feet of floor space, for $165,000. The seller was the Liberty National Bank and Trust Company, trustees.

A. J. Kemp, president of the paper package company, said the new plant will have three times as much equipment as the present factory, which will be continued. Floor space of the original plant is 25,000 square feet, he said.

Pennsalt Adds to Scope Of Plant at Natrona

NATRON, Pa.—New facilities for the manufacture of corrosion proof cements and paints, doubling former capacity, have been completed in the Natrona plant of the Pennsylvania Salt Manufacturing Company, the company has announced.

The unit went into production during this month. Formerly these products of Pennsalt's Special Chemicals Division were manufactured at the Philadelphia plant.

In addition to increasing capacity, newly developed processes were installed to improve production methods and also to permit manufacture of a wide range of new products now in the development stage.

Quebec's Premier Restates Position

MONTREAL—In answer to a question about the policy of the Province of Quebec with regard to its forests, Maurice Duplessis, Premier of the Province, this week reiterated an earlier expression of his policy.

"All forest limits will be leased to builders and not to promoters.

"Any scheme connected with these limits based on sheer speculation will be considered, and rightly so, as a most intolerable assault against public interest."

Premier Duplessis' statement was regarded as an attempt to clarify the issues in the fight for control of the St. Lawrence Corporation. An opposition group is attempting to oust the present management. The question of control will be decided at the annual meeting of the paper company on April 28 in Montreal.

Premier Duplessis had previously indicated that the Government was favorable to requests made by the present management for new timber limits. Such woodlands are needed to place its timber operations on a more efficient basis.

Improved earnings reported by the St. Lawrence Corporation subsidiaries for the first quarter of this year will simplify its reorganization, a spokesman for the company said.

The reorganization was not pressed last year, the spokesman for the management said, because the company was waiting to see the results which would be obtained in 1947 from the Red River development of Brompton Pulp & Paper Co., one of the three paper producing units of St. Lawrence. Brompton's earnings were favorably affected by the Red River project in the first quarter.

"If the management is returned to office, it will press reorganization vigorously," a spokesman for the company said.

Plant and Laird Head West Coast Branch

VANCOUVER, B. C.—Ralph S. Plant has been re-elected as president of the B. C. branch of the Canadian Forestry Association. R. S. Laird, Bloedel Stewart and Welch Ltd., has been re-elected vice-president.

Speaking at the annual meeting in Vancouver, Mr. Plant stressed the need for continued care in conservation of forest resources, and praised the work of the Junior Forrest Warden movement. He said they receive a high degree of training at their summer camp, and are doing much for fire prevention in the province.

George Miller, secretary manager of the association, reported that 91,141 people throughout the province had seen moving pictures on fire prevention sponsored by the association.

IF YOU NEED STEEL...

Is this talk about steel scrap shortage "old stuff"?

Not when you hear a veteran open-hearth superintendent say this:

"We are losing ground every day. There was a bad shortage of steel scrap during the war, but now it's much worse. I'm not exaggerating when I say that steel mill scrap piles are *now at their lowest ebb in the history of the industry.*"

There can be only one result — less steel for your needs.

(In normal times steel mills carry their highest scrap inventories from January to April.)

★ ★ ★ ★

Some steel mills have been forced to bank furnaces. Others are using abnormally high percentages of pig iron when the furnaces are "charged." This means longer refining time . . . lower production. Normally, about one-half ton of steel scrap is used for every ton of steel ingots produced.

YOU CAN HELP

There is only *one* possible solution—MORE SCRAP!

You can help hurry it to the steel industry through your regular channels by appointing an energetic supervisor to clean out the scrap "boneyards" in your plants and properties. These may include unused or obsolete equipment and machines — anything unusable that is made of iron or steel.

Then the scrap should be separated into ferrous and non-ferrous metals. A hurry call to your scrap dealer will do the rest. Help keep steel rolling! The American Rolling Mill Company, 1101 Curtis Street, Middletown, Ohio.

The shipping date may depend on your scrap pile!

OBITUARY

Maurice J. Moriarty

SOUTH HADLEY, Mass. — Maurice J. Moriarty, 86, of Silver Woods Ter., for about 70 years connected with the paper industry in Holyoke, died last week in the Providence hospital after a day's illness.

Graduated from the South Hadley High School at the age of 15, Mr. Moriarty got a job as an office boy at the Bay State Paper Co. in Springfield at $3 a week. Later he worked for two years as a bookkeeper in a Holyoke meat and provision store. Then he became billing clerk at the old Albion Paper Company, for which he worked for 19 years. After the Albion's merger into the American Writing Paper Company, he was superintendent of the Albion division for 10 years.

Resigning to form his own paper jobbing business, he bought and sold all types of paper and in addition became representative for the International Pulp Company of New York, the Illinois Zinc Company and the Thomas Young Company of New York. The latter firm dealt in Irish linen.

E. Arthur Ball

INDIANAPOLIS, Ind.—E. Arthur Ball, vice-president of Ball Brothers Company, Muncie, Ind., makers of glassware and paper containers, was found dead April 17 in his parked car at the Millville (N.J.) airport. He was 52 years old. He apparently died of a heart attack. He was an aviation enthusiast and members of his family said he had gone to the airport to pilot one of his planes.

He was a veteran of both World Wars and the son of Frank C. Ball, one of the founders of the company. He had gone from Muncie to Millville to manage one of the company's branches there. At the outbreak of World War I, he enlisted as a private in the artillery of the Connecticut National Guard. After United States entry in the war, he enrolled in the officer candidate school at Fort Benjamin Harrison near Indianapolis and was commissioned a second lieutenant. He saw overseas service with the Rainbow division and later was in the Army of Occupation. He was a lieutenant colonel in the Army Reserve Corps until 1932, when he resigned. He was a graduate of Yale University.

A lieutenant in the National Guard, he was called to duty in the last war and saw two years' service in Africa and Sicily as a member of the staff of Gen. Mark Clark.

He was affiliated with Masonic bodies in Muncie and the Scottish Rite here. He was a member of several clubs. The widow, two daughters and a son survive. The body was taken to Muncie for funeral services and burial.

Richard H. Dempsey

GREAT BARRINGTON, Mass., Richard H. Dempsey, forty-five, president and general manager of the Rising Paper Company, of Great Barrington, died here last week. He started in the paper business with the Strathmore Paper Company. He had been with the Rising Company for seventeen years. Surviving are his wife, Mrs. Margaret Dempsey, and two sons, Donald and Richard H. Dempsey, Jr.

Mr. Dempsey had taken an active interest in association work, and was a member of the Technical Association of the Pulp and Paper Industry.

Herbert Franklin Drew

LYONS FALLS, N. Y. — Herbert Franklin Drew, 74, former office manager and head of the accounting department of the Gould Paper Company, died April 6th at his home. He had been ill for about one and one half years.

Mr. Drew first came to Lyons Falls in 1913. He was employed by the Gould Paper Company as office manager and head of the accounting department. Mr. Drew served in this capacity until ill health forced him to retire on Jan. 1, 1946. He had formerly worked at a bank in Norwood and had operated a paper mill at Ballston Spa.

Lewis N. Cooke

RICHMOND, Va.—Lewis N. Cooke, aged 64, one of the founders of the Epes-Fitzgerald Paper Company, died April 15 at a Richmond hospital. At the time of his death he was president of the L. N. Cooke Safe & Lock Company, which he established in 1914. He was one of the organizers of the paper company in the same year.

Surviving are his widow, Mrs. Teresa Cooke; a sister, Mrs. Caroline Littlepage Cooke Mosely; two brothers, Charles Burwell and Carter Berkeley Cooke; two nephews, Edward Andrew and John Carter Moseley; six nieces and two great nephews. Burial was in Hollywood Cemetery here.

George H. Haywood

WORCESTER, Mass.—George H. Haywood, 77, former owner of the Bankers Envelope & Supply Company for 25 years until his retirement three months ago, died April 3.

Edwin F. Burns

Edwin F. Burns, chief engineer of the International Paper Company, New York, N. Y., died of a heart attack on Tuesday evening, April 15th, in the garden of his home in Larchmont, N. Y.

Mr. Burns was born in Rochester, N. Y., on December 24, 1897, and was graduated from the Rochester Athenaeum Mechanics Institute in 1916. Following service in the Army in 1917-19 he was assistant test engineer for the Eastman Kodak Company at Rochester (1919-22). In 1922 he became power engineer for the De Grasse Paper Company at Pyrites, N. Y., which later became part of the International Paper Company with which company he remained and successively worked at Gatineau, P. Q., Corinth, N. Y., and Glens Falls prior to becoming chief engineer in 1936.

Mr. Burns took a wide interest in industry and civic affairs and was until recently a member of the executive committee and general chairman of the Engineering Division of the Technical Association of the Pulp and Paper Industry. He was forced to retire from these positions in February of this year because of his health. He was also active in the A.S.M.E. and was a leader of the Boy Scouts of America. A large contingent of the latter attended his funeral in uniform.

Funeral services were held at the Larchmont Avenue Presbyterian Church in Larchmont, N. Y. As a member of the American Legion his casket was flag-draped. A Masonic service followed the church service. The presiding clergyman departed from his ritual routine to comment extensively on the many public services of Mr. Burns since he felt that his life has been an inspiring story particularly for the large number of boys and men present. Mr. Burns is survived by his wife and sons.

Owen Moon

PHILADELPHIA — Owen Moon, 75, president of the Scott Paper Company for a few months in 1927, died at his Hobe Sound, Florida, home on April 13.

Mr. Moon, who was most recently publisher of the Sentinel and Journal newspapers in Winston-Salem, N. C., had been associated with Scott from 1899 until 1927, when he became president.

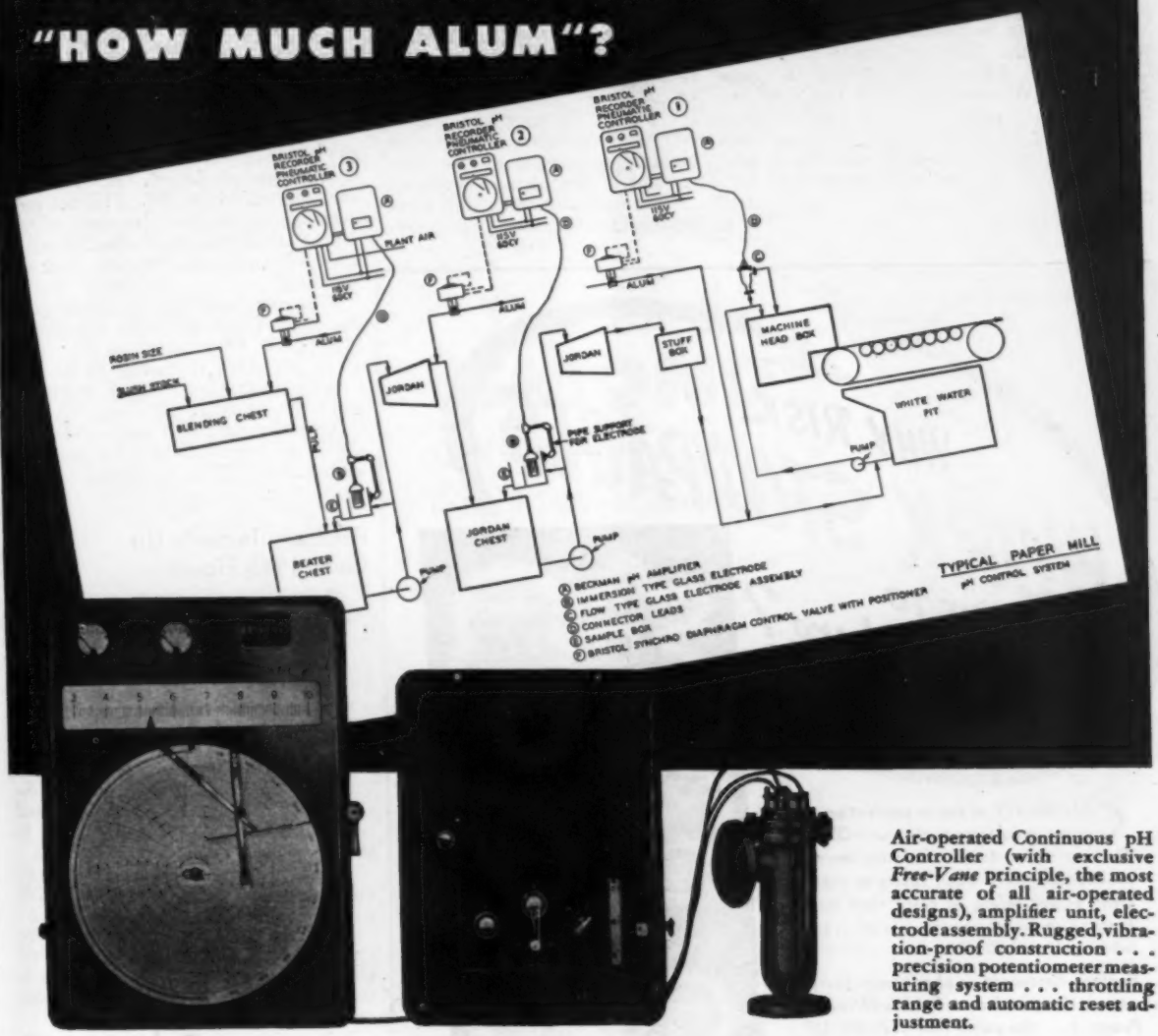
He served on the board of directors and became secretary and vice-president. He was promoted to the presidency upon the death of Arthur Hoyt Scott.

A graduate of Swarthmore College in 1894, Mr. Moon was a son-in-law of E. I. Scott, one of the founders of the Scott Paper Company.

In addition to his work with Scott, Mr. Moon was well-known for his work in the newspaper field and with the Essex Rubber Company of Trenton, N. J.

Continuous, Accurate, Automatic Answer to

"HOW MUCH ALUM"?



Air-operated Continuous pH Controller (with exclusive *Free-Vane* principle, the most accurate of all air-operated designs), amplifier unit, electrode assembly. Rugged, vibration-proof construction . . . precision potentiometer measuring system . . . throttling range and automatic reset adjustment.

In this typical continuous stock preparation system, foolproof control of pH is just a matter of using the right Bristol instruments at the right places.

Most important, of course, is the final addition of alum prior to the fan pump. Electrodes placed in the stock flow to the head box or in the white water coming from the wire pit continuously signal to the Bristol pH Controller how much alum should be introduced.

Once the Controller is set at the proper pH value, that value is automatically maintained ever after, regardless of changes in the character of the stock flow.

Other points where automatic pH control will guard product quality without the necessity of having to depend on periodic sampling for test . . . are shown in the diagram (2 and 3).

Bulletin pH 1300 gives information on the complete system illustrated above. Address The Bristol Company, 148 Bristol Road, Waterbury 91, Conn. (The Bristol Company of Canada, Ltd., Toronto, Ontario. Bristol's Instrument Co., Limited, London N.W. 10, England).

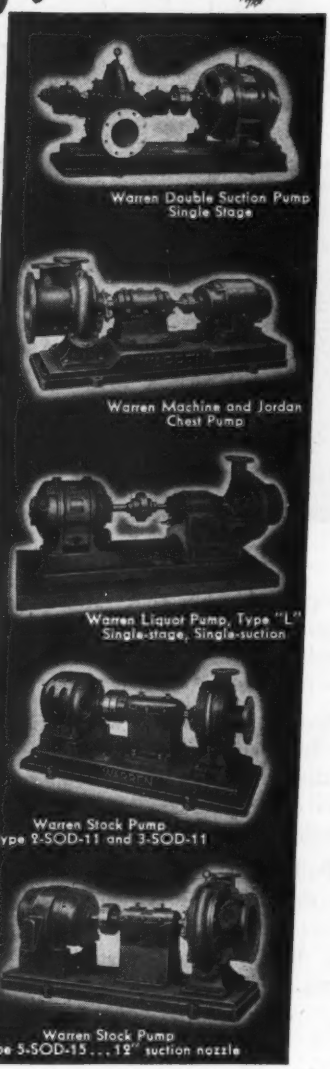
Engineers Process Control for Better Products and Profits

F. C. Huyck Plans Expansion Program

COHOES, N. Y.—Among the paper manufacturing firms of the Mohawk Valley seeking help during the past week were the Imperial Paper and Color Works, Glens Falls, Bagley & Sewall Co., Watertown, Union Bag & Paper Co., and others. Extensive post-war building programs under way or planned by many of the larger concerns are expected to be of great aid in providing additional space for manufacturing purposes.

F. C. Huyck & Sons have plans under way for a long range building and repair program which will involve a considerable expenditure. Application for a permit has already been filed with the Civilian Production Board and approval is expected. Plans are understood to call for an expenditure of $620,000 for new machinery and $680,000 for new buildings and re-arrangements. The program includes new rest room facilities, a new two-story building, northwest of the main building, and expansion and improvements to the finishing room and shipping departments. A steel warehouse is also to be rebuilt. A portion of the machinery has already been ordered. The branch plant at Arnprior, Canada, closely affiliated with the concern, is also planning an improvement program to cost over a half-million of dollars.

WHY RISK WORK STOPPAGES DUE TO Pump Failure?


Warren Double Suction Pump Single Stage
Warren Machine and Jordan Chest Pump
Warren Liquor Pump, Type "L" Single-stage, Single-suction
Warren Stock Pump Type 2-SOD-11 and 3-SOD-11
Warren Stock Pump Type 5-SOD-15 . . . 12" suction nozzle

CONTINUITY of paper production was never more important than NOW. Nothing slides down hill faster than a production record when faulty or inefficient pumps refuse to carry their load. Profits disappear . . . orders pile up . . . and labor costs mount.

Replace time-worn or obsolescent pumps with modern, performance tested Warren Pumps . . . the pump that STANDS UP LONGER with LESS MAINTENANCE, even on your toughest jobs.

Why not take some action on this problem today? Discuss your situation with a Warren Pump specialist. His suggestions will help you maintain constant, profitable production.

Write, wire or phone:

WARREN STEAM PUMP COMPANY, INC.
Warren, Massachusetts

PP71½

WARREN PUMPS

Hercules Doubles Net For First Quarter

WILMINGTON, Del. — Hercules Powder Company reports for the three months ended March 31, 1947, net earnings of $4,032,448. The net earnings are equal, after payment of preferred dividends, to $1.49 a share on 2,633,420 shares of common stock outstanding.

This compares with net earnings for the quarter ended March 31, 1946, of $1,751,253. These earnings were equal after preferred dividends to 62 cents a share on 2,633,420 shares of common stock outstanding.

Net sales of goods and services for the quarter were $35,664,566 compared with $23,003,774 in the first quarter of 1946.

February Imports Up Over 1945 Figure

WASHINGTON — United States imports of paper, paperboard, and paper products in February 1947 totaled 273,614 tons, the Department of Commerce has reported. These imports were about 33,000 tons below the January 1947 level but 27,000 tons above February 1946.

Of total imports in this group during February, paper represented 268,728 tons, paperboard 4,568 tons, and paper products 318 tons, according to the Pulp and Paper Section.

Newsprint imports during February, amounting to 260,815 tons, were 33,228 tons less than those in January.

February imports of pulpwood were 7,880 cords less than the January total and wood pulp imports registered a loss of 7,186 tons in similar comparison.

February exports of paper, paperboard, and paper products totaled 29,953 tons, a decrease of 5,731 tons from those in January and of 4,869 tons from February 1946.

Of total exports in this group during February, paper amounted to 14,194 tons, paperboard 6,806 tons, and paper products 8,953 tons.

Newsprint exports in February, totaling 1,568 tons, dropped 786 tons below the January figure.

February exports of wood pulp amounted to 9,534 tons, an increase of 3,059 tons over the January total.

Roosevelt Sets Up Service On Cutting and Packing

PHILADELPHIA — The Roosevelt Paper Company has established a specialized converting service to mills and jobbers. They are now in a position to do sheeting, rewinding, guillotine cutting and export packing of paper.

SIMONDS
SAW AND STEEL CO.
FITCHBURG, MASS.
MADE IN U.S.A.
You Can Get
SIMONDS
CIRCULAR CUTTERS
For Thinnest Tissue or Thickest Corrugated
Whether you use the "Shear Cut" or "Score Cut" method, Simonds has the right type of Circular Cutter to give you top performance. Made of special electric steel from Simonds' own steel mills, these cutters are forged . . . for experience proves that forging, gives greatest strength, keenest edge, and longest cutting life. Ask the nearest Simonds office to recommend the right Circular Cutter for you.
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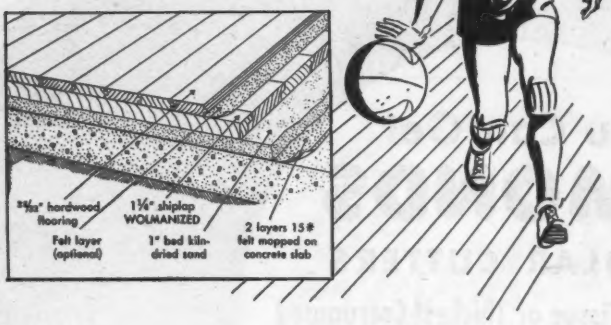
BRANCH OFFICES: 1350 Columbia Road, Boston 27, Mass.; 127 S. Green St., Chicago 7, Ill.; 416 W. Eighth St., Los Angeles 14, Calif.; 228 First St., San Francisco 5, Calif.; 311 S. W. First Ave., Portland 4, Ore.; 31 W. Trent Ave., Spokane 8, Washington. Canadian Factory: 595 St. Remi St., Montreal 30, Que.

IT'S *Cushioned*..

BUT ALIVE ALL OVER


25/32" hardwood flooring
Felt layer (optional)
1¼" shiplap WOLMANIZED
1" bed kiln-dried sand
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The Floating Floor, evenly supported at every point, has the real resilience of wood—plus!

No dead areas or hard spots to spoil the game, when a gymnasium floor follows this design. Players report "no shin splints and less fatigue". And it's quiet.

No expensive rebuilding jobs because of decayed subfloors, either, when Wolmanized Lumber* is used there. Pressure treatment with Wolman Salts* preservative makes standard structural lumber highly resistant to decay and termite attack. You save on upkeep.

For Industrial Buildings, too.

Floating Floors employing Wolmanized Lumber offer many advantages: easier on workers, quieter, longer lived, smoother trucking, and cost less to maintain.

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Monsanto Employes Donate to Relief

TEXAS CITY, Tex.—As an aftermath to Wednesday's disaster resulting from a ship explosion adjacent to the Monsanto plant, employes of the Monsanto organization are expressing their reaction with donations and offers of help. Also, William M. Rand, President, announced in St. Louis that, starting at noon today, flags at Monsanto plants all over the world were lowered to half-mast.

The Monsanto plants at Oak Ridge, Tenn.; Trenton, Mich.; Seattle, Wash.; Anniston, Ala., and St. Louis, were the first to get word to temporary headquarters here that donations were being taken up to aid or were being planned for fellow employes and their families who were victims of the tragedy.

At Oak Ridge, where Monsanto operates the Clinton Laboratories for the U. S. Atomic Energy Commission, the mechanical department is working an extra day, and is sending the resulting payroll as a sympathy expression to Texas City. At Trenton, donations have been coming in with cooperation of the union. At Seattle, employes of the Laucks plant—recently acquired by Monsanto as part of its western division—are contributing. At Anniston, a joint union-management committee has announced it will meet Monday to develop a procedure for assisting employes here. And at the Queeny plant, St. Louis, a committee is also being organized. At Dayton, employes of Monsanto's Central Research Department are making contributions to be forwarded Monday.

Earlier today, Rand notified all Monsanto plants, foreign and domestic, as follows:

"Commencing at noon today, you are requested to fly all flags at half mast for a period of 30 days. This is being done in respect to the memory of our men and women who lost their lives in the Texas City plant."

Work is underway at an accelerated pitch here in an effort to compile new statistics on casualties. New figures will likely be made available this evening.

Says Eastern Group Buys Hawley Pulp Control

PORTLAND, Ore.—The Hawley Pulp and Paper Company last week reported sale of a controlling interest in the firm to a group of Eastern men. John E. Wilson, Scarsdale, was listed among the purchasers.

J. R. Smith, company president, said an initial payment of $300,000 had been made with final payment to follow by May 31. Complete purchase price was not disclosed.

Where wet strength counts–

High wet strength of UFORMITE-treated paper is graphically shown by the fact that this paper bag when filled with water does not break even on prolonged soaking.

Photo courtesy Union Bag and Paper Company.

–count on UFORMITES 467 and 470 to do the job efficiently, economically!

Paper bags are just one of many applications where wet strength is of prime importance . . . and in which you can rely on the UFORMITES to give you superior wet strength efficiently and economically.

UFORMITE 467 is particularly designed for use with Kraft by beater addition. UFORMITE 470 is recommended for sulfite stocks—can be used effectively with Kraft, rag and groundwood —in stocks where low acidity is important.

Neither UFORMITE 467 nor UFORMITE 470 affects the color, odor or taste of paper. No special handling is needed . . . no special equipment is required to prepare these urea formaldehyde resins. And—as little as 1% resin solids on dry fibre weight will increase wet strength by as much as 300%!

In addition to giving your paper high wet strength properties, UFORMITE 467 and UFORMITE 470 will improve dry tensile and Mullen, fold, uniformity of sizing, and coating surface characteristics. Why not improve the quality and value of your paper at low cost? Write for full details

UFORMITE *is a trade-mark, Reg. U. S. Pat. Off.*

Represented by Cia. Rohm y Haas, S.R.L., Carlos Pellegrini 331, Buenos Aires, Argentina and agents in principal South American cities

THE RESINOUS PRODUCTS & CHEMICAL COMPANY

WASHINGTON SQUARE, PHILADELPHIA 5, PA.

Vancouver Reaches A Wage Settlement

VANCOUVER, B. C.—Contract renewals have been signed between more than 4000 pulp and paper mill workers and company officials in Vancouver. Negotiations were carried on for two weeks and a sufficient supply of newsprint being maintained for the next year. The contract provides a 12 percent increase in all hourly wage rates with a minimum increase of 12 cents per hour. Other contract changes include an increase in the night shift differential and overtime provisions, and an upward readjustment of many individual job rates.

The contract renewal, effective May 1, was signed by representatives of the International Brotherhood of Pulp, Sulphite and Paper Mill Workers, and the International Brotherhood of Paper Makers, both AFL, and officials of Powell River Company, Pacific Mills, B. C. Pulp and Paper Company and Sorg Pulp Company.

No provision is made in the contract for a 40-hour week, and both unions have agreed to continue the 44-hour work week through the present contract year.

"This current contract renewal marks a truly remarkable record in the industrial history of B. C.," it is declared in a joint statement issued by B. R. Cancell, vice-president of the Powell River Company, and John Sherman, vice-president of International Brotherhood of Pulp, Sulphite and Paper Mill Workers.

"We appreciate the union's recognition of economic puoblems facing the industry," said Mr. Cancell. These problems can only be solved "if we have plenty of production."

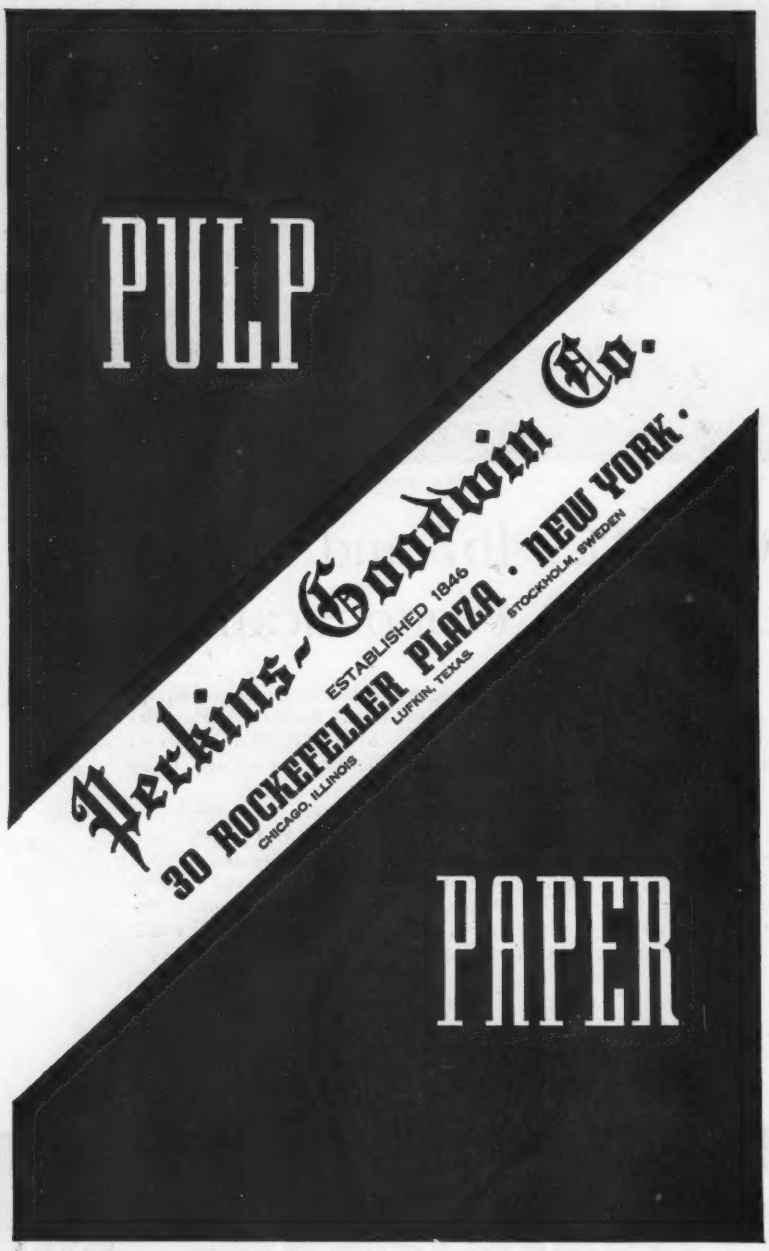
"These two unions, representing all paper mill workers in the province, have conducted negotiations with the companies since 1937," with no loss of time through strikes," said Mr. Sherman, "and they are prepared to accept their full share of responsibility."

Referring to recent intimation that officers of labor unions in the province are mainly communistic, Mr. Sherman said "We consider any such statement to be very unfair." The pulp and paper workers are opposed to "any philosophy used for the breakdown of the constitution or our governmental institution," he contended. "We are strictly opposed to any communistic philosophy."

Attending the conference were the following members of the union bargaining board who signed the agreement: Thomas Waldren, Henry Morris and James Curry, Powell River Company; Newman Compton and Donald McDonald, Pacific Mills; Stanley Green and Ken Sturdy, B. C. Pulp and Paper; Fran Horne, Sorg Pulp Company.

Employer representatives were: B. R. Cancell, D. A. Evans, Frank Flett, Powell River Company; F. A. Drumb, R. H. Young, E. Campbell and W. Locke, Pacific Mills; L. C. Kelly, D. Humphries, R. H. Richmond, John Guthrie, B. C. Pulp and Paper; Hugh Lewis, Sorg Pulp Company.

International Union officers were John Sherman, Jack Young, H. L. Hanson, Bert Hill, Bert Tidland and A. E. Brown.



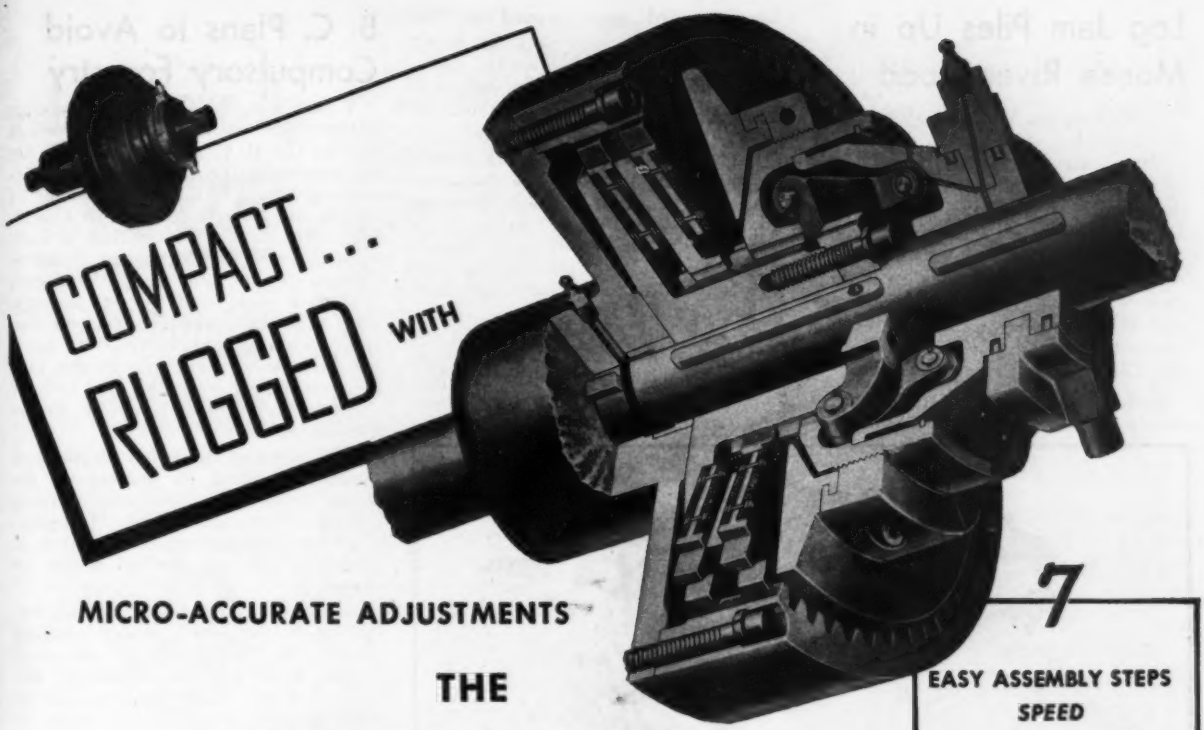
Bristol Lists Offering For Immediate Delivery

WATERBURY, Conn.—A new bulletin listing more than 150 different items maintained in stock for immediate delivery has been published by The Bristol Company, manufacturers of recording and controlling instruments for industrial processes. The new bulletin W1811 lists recording thermometers, pyrometers, pressure gauges, voltmeters, ammeters, and pH recorders.

Congress Drops Biennial Catalog

WASHINGTON, D. C. — Elimination from publication of a biennial catalog of Government publications has been decided on by the Congressional Joint Committee on Printing. Decision to omit the publication was influenced by the prospective saving of $60,000 per issue, and the information that the monthly catalog with an annual index would meet official requirements.

COMPACT... RUGGED WITH



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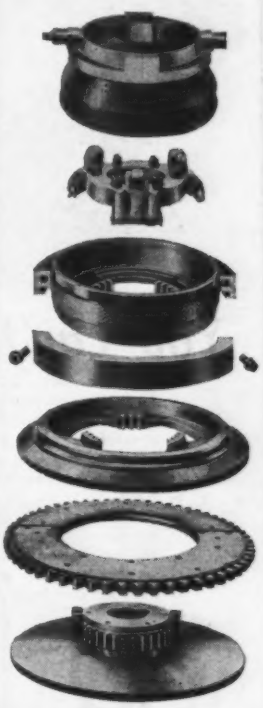

When in need of a MODERN, "TROUBLE-FREE" CLUTCH or CUT-OFF COUPLING, ask your MILL SUPPLY Distributor or write us direct for Catalog No. 189 which completely describes WOOD'S MODEL "GT" line of clutches.

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WOOD'S PRODUCTS FOR POWER TRANSMISSION
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Bearings Collars V-Belt Sheaves and Complete Drives

LONG LIFE LINE

BRANCHES: BOSTON, MASS. NEWARK, N. J. PITTSBURGH, PA. CLEVELAND, OHIO DETROIT, MICH.

Log Jam Piles Up in Moose River Flood

LOWVILLE, N. Y.—One of the most extensive log jams in the history of north country woodsmen has piled up a mile-long stretch of pulpwood on the Moose river above Lyons Falls. The rampaging Moose river, which empties into Black river, let loose when a portion of the McKeever dam gave way, caught the logs, then jammed behind booms at Lyonsdale, and tumbled them on down the river to the Lyons Falls booms.

Backed up this week for approximately a mile up the river, the logs have buckled and jammed so that picking will be necessary to loosen them in many cases. When the Lyons Falls boom is released, the logs will go out to be fed into the Gould Paper company's mills above the falls.

Crews of men were at work loosening logs caught along the banks of the river, hoping to send them on down the drive while the water is high and the current strong enough to carry them. Otherwise, the logs will have to be transported over land later in the season.

Carried along by the high waters, still being replenished by melting snow from the uplands, the logs jammed and cracked their way downstream.

You can't miss with W. G. P.

It's a fact . . . you can't miss with Walker-Goulard-Plehn. For our background of 91 years of continuous service, our reputation for reliability, and our energetic, alert staff of paper specialists make a combination that's hard to beat. Because of this W. G. P. commands a great volume of business in paper and board products, both in the domestic market and export field.

W. G. P. is vitally interested in making additional mill connections—both for the present and the future. If any of your output is available for the domestic or export markets, write us at once. Or, we'd be glad to sit down with you *now* to discuss or conclude a working agreement for the future.

W.G.P.

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.....EXPORTS TO ALL PARTS OF THE WORLD.....

B. C. Plans to Avoid Compulsory Forestry

VANCOUVER, B. C.—Forest planning covered by new legislation now made law by the B. C. government will not be forced on the forest industry, according to E. T. Kenney, Minister of Lands and Forests for British Columbia. Mr. Kenney stated that if individual firms in the forest industry decided to go into the government's sustained yield and forest management plan they would be welcome, but they would not be forced. If these firms decide to participate in this plan the government would be glad to have them as partners in growing timber for the future.

The minister said his department anticipates about 50 percent of the forest lands will come into working circles. There are already 34 applications for management licenses filed, he disclosed, although the bill is not yet passed.

Because it is not likely that all forest areas will come under working circles the "little fellow" or small logger will not be squeezed, Mr. Kenney said, though he may not always be able to get timber where he wants to log it.

"We are not going to let them hijack big stands that may be suitable for inclusion in working circles," he said. "But when a number of them want to get together and engage a forester jointly, or ask help from the government, they can."

Import Committee Reports Ice Hindered Shipments

NEW YORK — Imports of foreign paper dropped slightly during February, according to a report issued by the Import Committee of the American Paper Industry, but part of the decrease was due to the short month. Imports from Scandinavia were also somewhat smaller due to the ice conditions in the Baltic. Despite this situation, however, imports of kraft from Scandinavia totaled 650 tons, and sulphite wrapping 500 tons.

Customs officials have decided that gypsum wall board imported from Canada, claimed to be dutiable as laminated paper board at $14.50 per ton, is dutiable as in chief value of gypsum at 35 percent. Paper described as "antique catalogue" was classified as dutiable printing paper and not allowed duty free entry as standard newsprint. Paperboard claimed by an importer to be dutiable as laminated paperboard at 30 percent, believed by Customs officials to be dutiable as pasted bristol at 3 cents per pound and 15 percent.

A shipment of metal coated paper believed by Customs officials to be undervalued, but claimed by importer to be dutiable at the controlled export market price set by foreign manufacturers, has come before the United States Customs Court for trial.

Let's Take Up YOUR Pumping Problems

Worthington Solves Them with the Specific Pump for Every Paper Processing Job

Questions	Answers	
What's the best stock pump for sulphate, sulphite, soda, ground wood, waste paper, cotton linters, etc.?		An FP pump will handle them at capacities up to 6,000 gpm, heads to 200 ft. and consistencies to 7%.
How about a good white water or fan pump?		Use L and LA pumps for all heads and capacities with consistencies up to 1%.
What's a reliable pump for green or white liquor?		A CG Worthite is the ideal pump for dissolving-tanks, transfer and causticizing.
Handling black liquor is always a big problem at our mill. What pumps are best for its various phases?		For furnace feed of black liquor with suspended coke there's nothing like a CH pump.
		For circulation and transfer of concentrated black liquor at viscosities up to 10,000 ssu, use a CL.
		Black liquor pumping for multiple effect evaporators is best handled with a CG Worthite pump.

The Worthington Centrifugal Pumps shown here are your best answers for the general run of paper processing needs. Acids, bleaches, alum, sizes and other abrasive, corrosive, viscous or volatile liquids are handled efficiently and economically by these and other pumps in the world's most complete line.

Is Your Problem Different?

But perhaps you've met with some entirely new difficulty — either in processing or such general mill service as boiler feed, condensate or fire protection.

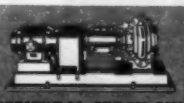
Whatever it may be, take advantage of the longest, most comprehensive experience in the field. Call our nearest district office or write to us direct. You'll get the prompt, expert cooperation on any pumping problem — no matter how unusual or complicated — that proves *there's more worth in Worthington.*

Worthington Pump and Machinery Corporation, Centrifugal Pump Division, Harrison, N. J.

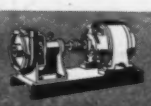
WORTHINGTON

C7-3

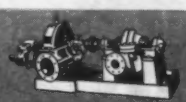
THE WORLD'S LARGEST MANUFACTURER OF PUMPS



CENTRIFUGAL STOCK PUMPS Type FP. Handle all kinds of stock up to 7% consistency. 4 sizes. Capacities up to 6000 GPM; heads up to 200 ft.; speeds up to 1750 RPM.



GENERAL PURPOSE PUMPS Type CF. Open impeller. Single stage. Sizes 1" to 4". Capacities up to 1000 GPM; heads up to 120 ft.; speeds up to 2475 RPM.



BOILER FEED PUMPS Type UB-2. 7 sizes. Capacities up to 1500 GPM; heads up to 1000 ft.; speeds up to 3600 RPM.

Dyke Tells Problems Of Board Industry

(Continued from page 34)

without advance warning. Just ten years ago, and well within our memory, the average days to run for the paperboard mills dropped from 15.7 days in April 1937 to 3.7 days in December 1937.

"Also in the year 1937 the activity figure dropped from 91 percent in April to 47 percent in December and production dropped from an average of 126,800 tons per week in April 1937 to an average of 66,200 tons per week in December 1937. Conditions change and these things do happen."

Malcolm K. Whyte, Association Counsel, discussed informally recent developments in labor laws and pending labor law legislation. He reviewed recent decisions of the National Labor Relations Board and the significance thereof.

Recent decisions of the United States Supreme Court were reported upon. Mr. Whyte also gave an interesting outline of the labor legislation now pending in the House and in the Senate, pointing out that these bills propose many changes in the laws affecting collective bargaining. These changes were reported upon in detail.

PAPER EXPORT

*IS A FULL TIME JOB!**

AND OUR ORGANIZATION IS GEARED TO DO THE JOB

For over 40 years the name *de Vries* has been associated with paper among buyers in all world markets.

For over 40 years the name *de Vries* has been synonymous with the export sales of leading paper mills.

E. de Vries Company

PAPER EXPORTERS ALL OVER THE WORLD

EDVECO

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NEW YORK 17, N. Y.

EDVECO

Cable address "Cellulose" New York

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Copyright 1947 E. de Vries Company

J. C. LaGrua, of National Folding Box Company, New Haven, Conn., who is Chairman of the Association's Biological Control Committee, submitted an interesting and instructive report on the subject of Biological Control of Paperboard. A program for the conduct of research studies on this subject, as recommended by the Committee, was approved and will be put into effect comemncing in the near future.

President Dyke reviewed the status of Rule 41, Fibre Box Specifications, stating that in November 1946 the railroads in the Eastern Territory had published the Rule 41 fibre box specifications, as they were in effect prior to November 15, 1941, to become effective December 31, 1946. The suspended specifications would have eliminated certain boxes and would also have required minimum caliper and minimum tests for the individual facings of corrugated boxes. He explained that the National Paperboard Association and other interested groups had filed petitions for suspension with the Interstate Commerce Commission with the result that the I.C.C. granted a suspension until July 31, 1947. Mr. Dyke explained in detail, developments which have followed the suspension of the tariffs, including meetings attended by representatives of the railroads and by representatives of the containerboard and fibre box industries. His report covered all developments up to the time of the meeting.

Grafton Whiting, Statistician, announced that the Paperboard Industry Statistical Yearbook for 1946 has just been completed and copies were handed to the members in attendance. A report on Paperboard Industry Statistics was presented by Mr. Alvin A. Newburg, Assistant Statistician.

United Wallpaper Adds Two Mid-west Mills

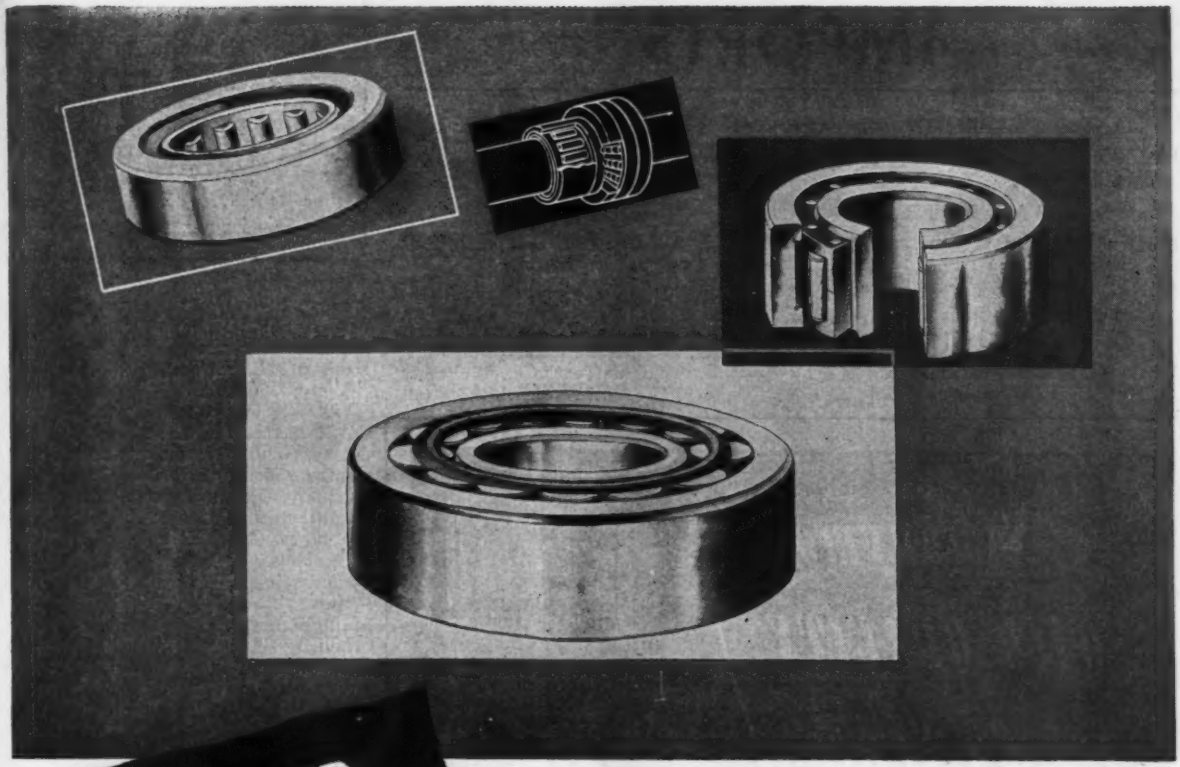
CHICAGO — United Wallpaper, Inc., this week reported signing contracts for the purchase of two Middle Western wall paper mills, Superior Wall Paper Co., Joliet, and Missouri Valley Wall Paper Mills, North Kansas City, Mo. Combined production of the mills represents about five percent of the nation's output, according to W. H. Yates, president of United. Final details of the purchase will be completed within the next month and the mills will then be operated as independent subsidiaries, Mr. Yates said.

Horace Moses Closes Long Paper Career

(Continued from page 21)

battle there. He also provided funds for the construction of a hospital and the permanent headquarters of the New York State Historical Society at Ticonderoga.

Surviving are his wife, Mrs. Alice Elliott Moses, whom he married in 1895, and a daughter, Miss Madeline Moses.



SEALED BID SALES

UNUSED BEARINGS

You are almost sure to find the bearings you need in the $20,000,000 stock which is now being sold by WAA. Here you have all sizes and types of friction and anti-friction bearings and components—unused. Your nearest WAA Regional Office will give you all necessary information on the sale and will assist you in making an inspection of the stock. Then set your own price and submit your bid.

Sales of bearings will be held at frequent intervals. To receive information on future sales, write to the Regional Offices listed below and ask that your name be placed on their mailing lists.

BOSTON
CINCINNATI
CHICAGO
CLEVELAND
ST. LOUIS
LOS ANGELES
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KANSAS CITY
ATLANTA

OFFICE OF GENERAL DISPOSAL

WAR ASSETS ADMINISTRATION

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Offices located at: Atlanta • Birmingham • Boston • Charlotte • Chicago
Cincinnati • Cleveland • Denver • Detroit • Grand Prairie, Tex. • Helena • Houston
Jacksonville • Kansas City, Mo. • Los Angeles • Louisville • Minneapolis • Nashville
New Orleans • New York • Omaha • Philadelphia • Portland, Ore. • Richmond
Salt Lake City • St. Louis • San Antonio • San Francisco • Seattle • Spokane • Tulsa

IMPORTS

NEWSPRINT

East West Trading Corp., Frierfjord, Oslo, 479 rolls.

WALLPAPER

Kersten Shipping Agency, American Ranger, Havre, 1 cs.
All Transport, Inc., Wisconsin, Havre, 20 cs.

TISSUE PAPER

Texas Transport & Terminal Co., Port Campbell, London, 5 cs. (Copying).

FILTER PAPER

H. Reeve Angel & Co., Inc., Port Campbell, London, 28 cs.

PHOTO PAPER

J. J. Gavin & Co., Port Campbell, London, 4 cs. (unsensitized).

RAGS, BAGGINGS, ETC.

A. W. Fenton Co., Wellesley Victory, Genoa, 279 bls. old dark cotton rags.
Continental Bank Trust Co., Wellesley Victory, Genoa, 127 bls. dark cotton rags; 204 bls. old cotton rags.
(———), Wellesley Victory, Genoa, 46 bls. cotton rags.
Bank of N. Y. Trust Co., Wellesley Victory, Genoa, 41 bls. old cotton rags; 49 bls. cotton rags.
Castle & Overton, Inc., Wellesley Victory, Genoa, 116 bls. old cotton rags.
Continental Bank Trust Co., George Uhler, Algiers, 152 bls. cotton rags.
Manufacturers Trust Co., Honduras Victory, Genoa, 244 bls. old bagging.
E. J. Keller Co., Inc., Honduras Victory, Genoa, 444 bls. dark cotton rags.
Manufacturers Trust Co., Port Campbell, London, 7 bls. woolen rags.
Continental Bank Trust Co., Elmira Victory, Piraeus, 247 bls. rags.
W. Steck & Co., Elmira Victory, Alexandria, 51 bls. old colored cotton rags.
E. J. Keller Co., Inc., Elmira Victory, Alexandria, 55 bls. old white cotton rags.

OLD ROPE

International Purchasing Co., Wellesley Victory, Genoa, 74 coils.

CHINA CLAY

Orbis Products Corp., Montreal City, Bristol, 400 bags.

GLUESTOCK, ETC.

Atlantic Gelatine Co., Wellesley Victory, Genoa, 91 bls. gluestock.
H. Remis, Long Eye, Havana, 499 bls. gluestock.
John Gorvers, Linda Dan, Buenaventura, 148 bags hidecuttings.

WOODPULP

Perkins Goodwin Co., Mormacyork, Gothenburg, 222 bls. half-prime strong bleachable sulphite pulp, 37 tons.
Castle & Overton, Inc., Frierfjord, Oslo, 1 pkg. woodpulp samples.

NEW YORK IMPORTS

WEEK ENDING APRIL 19, 1947
SUMMARY

Newsprint	479 rolls
Wall Paper	21 cs.
Tissue Paper	5 cs.
Filter Paper	28 cs.
Photo Paper	4 cs.

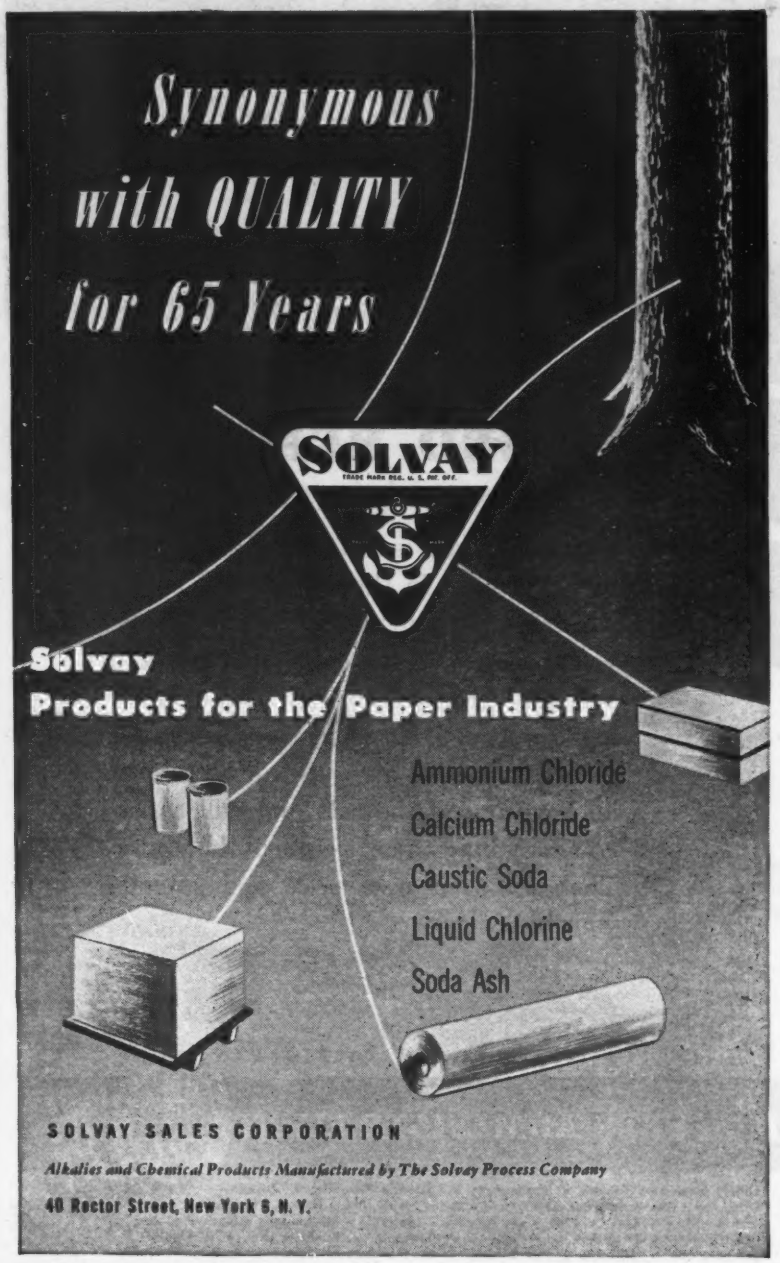
PHILADELPHIA IMPORTS

WEEK ENDING APRIL 19, 1947

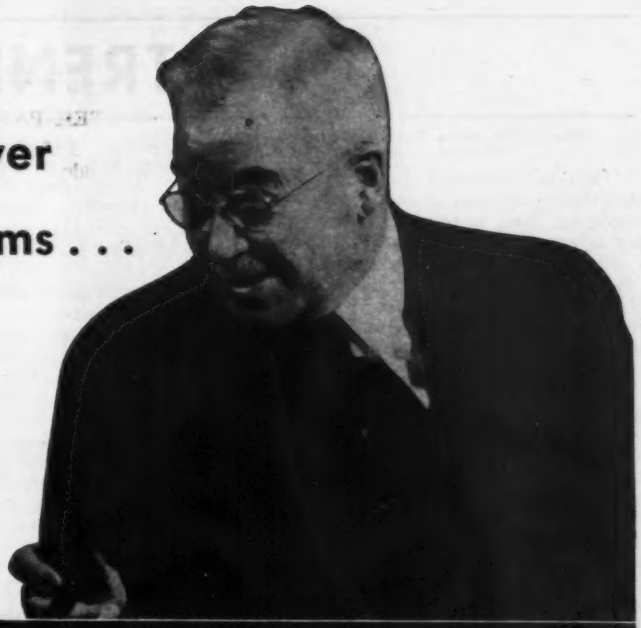
J. J. McGrath, Inc., Honduras Victory, Leghorn, 34 bls. cotton thread waste.

Fire Damages Alsta Container

CARTHAGE, Ind.—Damage of several thousand dollars occurred when fire destroyed half the plant of the Alsta Container, Inc., here, makers of paper board containers of many kinds. Firemen from several nearby cities were called to aid in controlling the flames.



"When I want
the RIGHT answer
to my tubing problems . . .



I go to headquarters!"

. . . that headquarters is NATIONAL Tube — the world's largest producer of steel tubular products.

BECAUSE we make seamless steel tubing in the *widest* range of size and wall thickness, and in *every steel* analysis from low carbon to the finest alloy and stainless steels . . . because we've been successfully applying steel tubes to *every* industry for nearly sixty years — our recommendations to you are bound to be eminently practical and completely unbiased.

Tubing in paper mill service is so important that it deserves the *best* engineering advice you can get on its selection and use. And we are prepared to give you just that.

If your tubing applications involve unusually severe conditions—or even if they appear quite simple—we can show you how to keep tubing costs down, how to attain top efficiency in performance, how to lengthen life between replacements.

Bear this in mind:—Our purpose always is to make certain that the tubing you use will insure the most satisfaction and will save money for you. If the job can be handled by steel tubing, we will show you how it can be handled better by NATIONAL Seamless Tubing. If, on the other hand, some other material is called for, we'll be frank to tell you so.

That's why it pays to come to "headquarters" . . .

WALLS WITHOUT WELDS

NATIONAL TUBE COMPANY

PITTSBURGH, PA.

Tubing Specialties Division

Columbia Steel Company, San Francisco, *Pacific Coast Distributors*
United States Steel Export Company, New York

NATIONAL TUBE COMPANY USS STEEL UNITED STATES STEEL

UNITED STATES STEEL

TRENDS

Office of the PAPER TRADE JOURNAL,
Wednesday, April 24, 1947.

Over-all demand for paper and paperboard remains strong with prices becoming more stabilized. Labor supply continues to improve both in efficiency and availability, less absenteeism is reported and the rate of turnover is lower. With a record shattering first quarter tonnage of 5,176,832 tons, exclusive of newsprint, domestic mills produced more paper and board than any other country has to date produced in a full year. Paper and board prices are still higher in the spot market than manufacturers' quotations. Most recent offerings, however, indicate peak levels have been reached and prices are beginning to level off. Most of the large producers are holding the line. The United States Envelope Company reports its present prices will be maintained until further notice, and all orders in the future will be entered and billed at firm prices in keeping with President Truman's effort to stop the spiral of rising prices. The company's current price schedule has been in effect since December 2, 1946. Transportation difficulties and chemical shortages still exist to annoy the entire industry. Non-integrated mills are hard put to maintain current levels of paper and board production in face of diminished receipts and reduced inventories of market wood pulp. Nevertheless, all indications point to another record year for the paper industry with United States output reaching about 21,500,000 tons.

The index of general business activity for the week ended April 12 fell to 139.5 from 142.2 in the previous week, compared with 126.7 for the corresponding week in 1946. The index of paperboard was 164.6, compared with 179.3 in the preceding week and with 168.3 for the corresponding week in 1946.

Paper production for the week ended April 12 was 102.4 per cent, compared with 106.1 for the preceding week, with 103.6 for the corresponding week in 1946, with 87.4 for 1945, with 84.7 for 1944, and with 89.3 per cent for the corresponding week in 1943.

Paperboard production for the week ended April 12 was 96.0 per cent of capacity, compared with 102.0 per cent for the preceding week, with 101.0 per cent for the corresponding week in 1946, with 97.0 for 1945, with 92.0 for 1944, and with 96.0 per cent for the corresponding week in 1943.

Newsprint is still a problem for both small and large publishers. Small newspapers, particularly weeklies, are dependent on promises of their suppliers because many of them have no contracts. Some dailies are buying newsprint in the spot market since their contracts with paper houses do not always provide sufficient stocks for their needs. A good number of consumers are still skeptical but hopeful that promised deliveries will be forthcoming. Most frequent complaint is delay in shipments, sometimes leaving publishers with just enough paper for one issue. Still a major concern is the forced rejection of advertising in order to conserve newsprint supplies. Publishers of weeklies feel that their greatest advertising opportunities are present today and may be gone by the time newsprint supplies become more plentiful. Weeklies report jobbers only send them what newsprint is left after dailies have been taken care of. They suggest the elimination of newsprint in circulars which usually end up in waste baskets, holding down daily newspaper tonnage to the 1945 level, and less extravagance in government use of print paper.

Meanwhile Senator Lister Hill of Alabama reports that the Department of Justice has been investigating the anti-trust aspects with regard to inequities in newsprint distribution. Because of the complex structure of producer ownership and the questionable jurisdiction over Canadian producers, Senator Hill was not able to predict what immediate relief could be expected for Alabama publishers and other small publishers over the country. If any relief is to be obtained for our small daily and weekly newspapers, fraternal, civic, religious, farm and labor publications, it must be as result of action taken in the United States and Canada. Foreign imports are duty free, but because the newsprint shortage is world-wide, little foreign newsprint is coming into the United States.

Wood Pulp

Domestic production of wood pulp continues to run ahead of output for the corresponding period last year. Overseas imports of market pulp are beginning to pick up although receipts so far this year are below figures set this time last year. Non-integrated mills will have to bear the burden of the increased prices of Swedish pulp since they are the largest users of this source of market pulp.

Swedish wood pulp prices for April remain $156 for bleached kraft, $151 for regular bleached sulphite and $158.50 for special grades of bleached sulphite; regular unbleached sulphite grades are $121 and $131 for special grades; regular unbleached kraft is $116 and special grades at $126. All prices are per short ADT ex. dock New York and are subject to change since they apply to April contracts only.

Waste Paper

A very noticeable easing in demand for waste paper by paper mills has cropped up since the increase of springtime collections with brokers reporting heavy accumulations of most all grades. Some paper mills are not buying waste paper to replenish inventories until they use up their old stocks. Brokers, however, regard the outlook as favorable with supplies heavy enough to satisfy buyers and with paper mills operating at capacity to insure good demand for the rest of the year.

Over-all price level for waste paper remains constant despite the temporary easing of the market. Triple sorted No. 1 brown soft kraft dropped down to the $60 to $70 level otherwise quotations are unchanged.

Rags

White shirt cuttings at $11.50 per 100 pounds delivered to paper mills plus dealer's commission featured last week's market for new domestic cotton cuttings. Light prints at about $5.75 showed renewed strength as did light percales at the same price or slightly above.

Repacked No. 1 whites at $5 were the strongest in the old domestic cotton rag market. No. 1 roofing rags were steady at the $2.20 level as were repacked thirds and blues at $3.

Old Rope and Bagging

Old rope market continued steady with domestic manila rope at $5.75 per 100 pounds f.o.b. mills New York. Quotations for jute, sisal and mixed strings went unchanged.

Paper mills are using up their current stocks of old bagging before adding to their inventories. Nevertheless, offerings of domestic No. 1 gunny are taken up at the $4.25 to $4.50 level. Bright bagging at $4.35 per 100 pounds was fairly strong. Light wool tares at $4.65 showed some action.

U. S. Envelope Prices Will Not Spiral

SPRINGFIELD, Mass. — The United States Envelope Co. has notified President Harry S. Truman and its customers that all list prices would be stabilized at those prevailing Dec. 2, 1946, to help "stem the present tide of advancing prices, which, if continued, will prove harmful to the country."

The company said that since Dec. 2, increases in transportation and material costs have added $700,000 yearly to its expenses. However, it said, prices would be more likely to be stabilized if more manufacturers stood firm and notified others that the breaks had been put on inflation.

"President Truman's effort to stop the spiral of rising prices and even have some prices reduced will gain momentum if a determined effort is made on the part of many manufacturers to at least stabilize their prices," the company added.

THE AMERICAN PULP AND PAPER MILL SUPERINTENDENTS ASSOCIATION, INC.

27th Annual Convention
Edgewater Beach Hotel

Chicago, Ill.

May 22-24, 1947

ASSOCIATION OFFICE
220 East 42nd Street
New York 17, N. Y.

PRICES

With the elimination of price controls on paper, pulp, rags and other materials, the quotations given below once more become indicative of trends in an open market. At the moment they can be of little more, for, while some volume of business still is being done under contract at the figures given below, fluctuations representing special conditions are too varied and too frequent to permit prices to be given as representing a wholly stabilized market.

Paper

(Delivered New York)

Standard News, per ton—

Roll, contract	$84.00	@	$90.00
Sheets	103.00	"	109.00

Kraft—per cwt.—Carload Quantities
Zone A, Delivered
40 lb. base weight

Superstandard Wrapping	$7.00	to	—
No. 1 Wrapping	6.50	"	6.75
Standard Wrapping	6.00	"	6.25
Standard Bag	5.75	"	6.25

Tissues—Per Ream 24x36 (480) 10 lb. Zone 1.

Wh. No. 1 Frd.	1.10	@	1.20
Wh. No. 1 M. G.	1.10	@	1.20
Wh. No. 1½	.95	@	1.10
Wh. No. 2	1.00	@	1.10
Wh. Anti-Tar.	2.25	@	3.50
Kraft Unbl.	1.15	@	1.25
Manila No. 2	.90	@	1.05

Toilet—Per Case of 100 rolls 1 M Sheets.

Unbleached	4.47	@	5.50
Bleached	6.50	"	—

Paper Towels — Per Case of 3750 Zone 1.

Wh. C. fold 11x13½	4.09	@	—
Br. Sgl. fold 10 in.	2.37	"	2.48
Br. M'tif'd 9½x14¼	3.48	"	—
Br. M'tif'd 9½x9¼	2.37	"	2.48

Manila—per cwt.—C. l. f. a.

No. 1 Jute	11.25	@	—
No. 1 Manila 35 lb.	6.00	"	7.00

Boards, per ton—

News	*75.00	@	81.50
Chip	*73.00	"	77.50
Sgl. Mle. L1 Chip	*89.00	"	92.50
White Pat. Coated	*101.50	"	110.00
Kraft Liners 42 lb.	*84.00	"	100.00
Binders Boards	94.00	"	126.00

Base Prices per 10 tons. Less than 10 tons but over 3 tons, add $2.50; three tons or less, add $5; regular 35-39 basis, add $5; basis 40-49, add $2.50; basis 91-100, add $2.50; basis 101-120, add $5.

The following are representative of distributors' resale prices, all deliveries in Zone 1:

Rag Content Bonds and Ledgers—White, Assorted Items

	Bonds	Ledgers
100% Rag Ext. No. 1	$39.75 @ $46.75	$40.90 @ $48.00
100% Rag.	32.85 " 38.50	34.00 " 40.00
85% Rag	.... "	30.55 " 38.75
75% Rag	24.30 " 28.50	24.45 " 30.00
65% Rag	.... "	.... " ....
50% Rag	20.05 " 24.50	21.25 " 25.75
25% Rag	17.85 " 21.75	19.00 " 23.25

Colors at $1.00 cwt. extra.

Sulphite Bonds and Ledgers—White, Assorted Items

	Bonds	Ledgers
No. 1	$12.00 @ $14.50	$13.15 @ $16.00
No. 2	11.25 " 13.75	12.25 " 15.00
No. 3	.... "	.... " ....
No. 4	10.60 " 13.00	11.75 " 14.25

Colors $1.00 cwt. extra.

Free Sheet Book Papers—White, Cased Paper

No. 1 Glossy Coated	$14.70	@	$16.75
No. 2 Glossy Coated	13.75	"	15.50
No. 3 Glossy Coated	13.20	"	16.00
No. 4 Glossy Coated	12.80	"	14.50
No. 1 Antique (Watermarked)	11.35	"	12.75
No. 2 Offset	10.65	"	12.25
A Grade E. F.	10.60	"	12.00
A Grade S. & S. C.	11.00	"	12.50
B Grade E. F.	10.30	"	11.75
B Grade S. C.	10.70	"	12.25
C Grade E. F.	10.00	"	11.50
C Grade S. C.	10.40	"	12.00
D Grade E. F.	9.70	"	11.00
D Grade S. & S. C.	10.10	"	11.50

Ivory & India at $.50 cwt. extra.

Wood Pulp

Domestic mill prices delivered with former OPA freight allowances.

	Per Short ADT		
Groundwood	$75.00	to	—
Unbleached Sulphite	117.00	"	—
Bleached Sulphite	121.00	"	125.00
Bleached Soda	105.00	"	115.00
Unbleached Kraft	102.50	"	—
Southern Kraft	90.00	"	102.50

Canadian mill prices delivered with freight allowances of $7.50 per ADT; unless otherwise specified:

	Per Short ADT		
Regular Kraft	$102.50	to	—
Select Unbleached Kraft (no freight allowance)	105.00	"	—
Unbleached Sulphite	115.00	"	—
Glassine Unbleached Sulphite (no freight allowance)	102.50	"	—
Bleached Soda	105.00	"	115.00
Groundwood	75.00	"	80.00
Sideruns Pulping News	75.00	"	—
Hardwood and Specialty Grades	Nominal		

Swedish Quotations
Ex. dock, New York

	Per Short ADT		
Bleached Kraft	$156.00	to	—
Bleached Sulphite	151.00	"	158.50
Unbleached Sulphite	121.00	"	131.00
Unbleached Kraft	116.00	"	126.00

Finnish Quotations
Ex. dock, New York

	Per Short ADT
Bleached Sulphite	$165.00
Unbleached Sulphite	132.50
Unbleached Sulphite (special grade)	137.50
Unbleached Sulphate	132.50
Unbleached Sulphate (special grade)	159.00

Other European countries, at the present time, are not quoting on prompt and forward deliveries of wood pulp, because they have no tonnage available for export.

New Domestic Cotton Cuttings

(Prices delivered Mill Plus Dealer's Commission)

White Shirt	$11.50	to	$12.00
Light Silesias	7.50		
Unbleached Muslin	11.50	"	12.00
White Back Blue Overalls	8.25		
Blue Overalls	7.75		
Unbl. Fancy Shirt	4.50	"	5.00
Light Percales	5.50	"	6.00
Light Prints	5.25	"	5.95
Washables	4.00		
Bleachable Khaki	5.50	"	6.00
Unbleachable Khaki	5.00	"	5.50
Cottonades	4.50	"	5.00

Old Domestic Cotton Rags

(F.O.B. Shipping Point Plus Dealer's Commission)

	Per 100 lbs		
No. 1 Whites Repacked	$5.00		
No. 1 Whites Miscellaneous	4.25		
No. 2 Whites Repacked	4.00		
No. 2 Whites Miscellaneous	3.50		
Blue Overalls	3.75		
Thirds and Blues Repacked	3.00		
Thirds and Blues Miscellaneous	2.50		
No. 1 Roofing Rags	2.20		
No. 2 Roofing Rags	2.10		
No. 3 Jute Bagging	2.00		
No. 4 Brussels and hard back carpets	2.00		
No. 5A Roofing Rags	2.00		

New Foreign Cotton Cuttings

(Prices delivered Mill)

	Per 100 lbs.		
New Dark Cuttings	$6.00	to	....
New Mixed Cuttings	6.50	"	....
Light Silesias	9.00	"	10.00
Light Flannelettes	8.00	"	9.00
New White Cuttings	13.00	"	15.00
Fancy Shirt Cuttings	9.00	"	10.00
Light Prints	8.00	"	10.00
Bleachable Khaki, No. 1	7.00	"	7.50
Unbl. Khaki, No. 1	6.25	"	6.75

Old Foreign Rags

(F.O.B. New York)

	Per 100 lbs.		
No. 1 White Linens	$14.00	to	16.00
No. 2 White Linens	12.00	"	13.00
No. 3 White Linens	8.00	"	9.00
No. 4 White Linens	8.00	"	9.00
No. 1 White Cottons	10.00	"	12.00
No. 2 White Cottons	8.00	"	9.00
No. 3 White Cottons	6.50	"	7.00
No. 4 White Cottons	5.00	"	5.50
Extra Light Prints	7.50	"	8.00
No. 1 New Light Prints	6.25	"	6.75
Med. Light Prints	5.25	"	5.75
Dutch Blue Cottons	5.25	"	5.50
Checks and Blues	4.00	"	4.25
Linsey Garments	4.50	"	5.00
Dark Cottons	3.75	"	4.00
Old Shopperies	3.25	"	3.50
New Shopperies	3.25	"	3.50

BAGGING

(Prices to Mill, f.o.b. N. Y.)

	Per 100 lbs.		
Foreign Gunny, No. 1	$4.75	to	5.00
Domestic Gunny, No. 1	4.25	"	4.50
Light Wool Tares	4.50	"	4.75
Heavy Wool Tares	4.75	"	5.00
Bright Bagging	4.25	"	4.50
Foreign Manila Rope	6.00	"	7.00
Domestic Manila Rope	5.75	"	....
Jute Strings	4.50	"	5.00
No. 1 Sisal Strings	4.00	"	4.50
Mixed Strings	1.75	"	....

Waste Paper

Prices to Mills
(Dollars Per Ton)
F.o.b. New York, Baled

No. 1 Hard White Envelope Cuts, one cut	$100.00	@	$120.00
No. 1 Hard White Envelope Cuts	90.00	"	100.00
No. 1 Hard White Shavings, unruled	100.00	"	110.00
No. 1 Hard White Shavings, ruled	80.00	"	90.00
Soft White Shavings, one cut	95.00	"	105.00
No. 1 Soft White Shavings	85.00	"	95.00
Soft White Shavings, Misc.	65.00	"	75.00
No. 1 Fly Leaf Shavings	55.00	"	60.00
No. 2 Fly Leaf Shavings	50.00	"	55.00
No. 1 Groundwood Fly Leaf Shavings	30.00	"	33.00
No. 2 Mixed Groundwood Fly Leaf Shavings	(nominal)		
Mixed Colored Shavings	(nominal)		
Mixed Groundwood Colored Shavings	(nominal)		
Overissue Magazines	(nominal)		
No. 1 Heavy Books & Magazines	40.00	"	45.00
Mixed Books	22.00	"	25.00
No. 1 White Ledger	70.00	"	80.00
No. 2 Mixed Ledger, colored	60.00	"	70.00
New Manila Envelope Cuttings, one cut	100.00	"	110.00
New Manila Envelope Cuttings	65.00	"	75.00
Extra Manilas	40.00	"	45.00
Mixed Kraft, Env. & Bag Cuttings	75.00	"	85.00
Kraft Envelope Cuttings	100.00	"	105.00
Triple Sorted, No. 1 Brown Soft Kraft	60.00	"	70.00
New 100% Kraft Corrugated Cuttings	70.00	"	75.00
No. 1 Assorted Old Kraft	40.00	"	50.00
New Jute Corrugated Cuttings	27.00	"	—
Old 100% Kraft Corrugated Containers	(nominal)		
No. 1 News	26.00	"	27.00
No. 1 Mixed Paper	19.00	"	21.00
Box Board Cuttings	23.00	"	—
White Blank News	75.00	"	80.00
Overissue News	(nominal)		
Old Corrugated	28.00	"	30.00
Mill Wrappers	22.00	"	25.00

Twines

All Prices Nominal
(F. o. b. Mill)
(Soft Fiber)

Coarse Polished—			
India	.26	@	.29
Fine Polished—			
Fine India	.31	"	.35
Unpolished—			
Paper Makers	.20	"	.26
Tube Rope	.22	"	.27½
Wrapping	.26	"	.33½
Cotton	.70	"	—
(Hard Fiber)			
Mex. Sisal	.21	"	.24
Manila	.33	"	—
(Hemp)			
Polished Hemp	.63	"	—

PHILADELPHIA

Domestic Rags (New)

(F.O.B. Eastern Shipping Point)

Shirt Cuttings—			
New White No. 1	.10½	@	.11
New White No. 2	nominal		
Light Silesias	.07½	"	.08
Black Silesias, soft	.06½	"	.07
New Unbleached	.10½	"	.11¼
Washable Prints	.06½	"	.07
Washable No. 1	.05	"	.05½
Blue Overall	.07½	"	.08
Cottons—According to grades—			
Washable Shredding	.03½	"	.04
Fancy Percales	.06¾	"	.07¼
New Black Soft	nominal		
Khaki Cuttings—			
Unbleachable Cotton Cuttings	.05½	"	.06
Bleachable Cotton Cuttings	.06½	"	.07
Men's Corduroy	.05½	"	.06
Ladies' Corduroy	.05	"	.05½
Cottonades	.05½	"	.06

Domestic Rags (Old)

(F.O.B. Eastern Shipping Point)

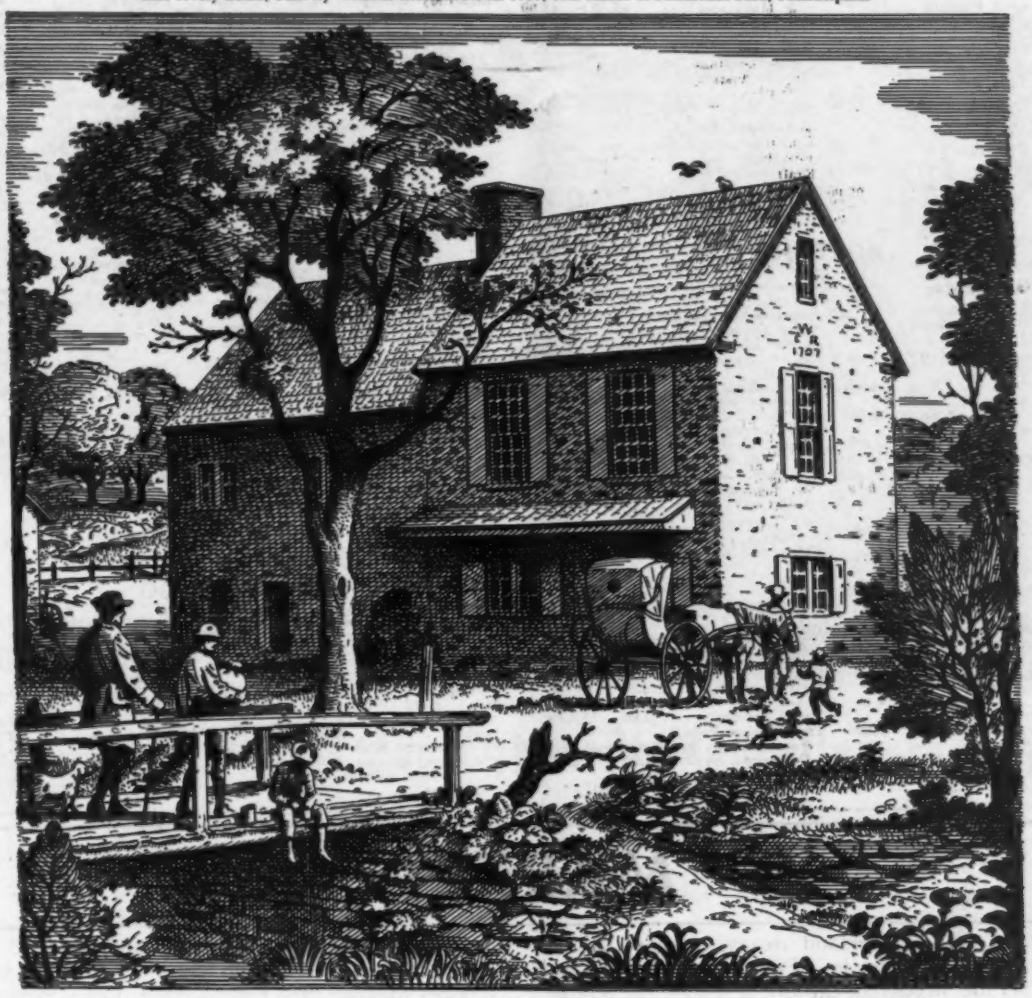
White No. 1—Repacked	4.50	"	5.00
Mixed White	4.00	"	4.25
White No. 2—Repacked	3.50	"	3.75
Thirds and Blues—Miscellaneous	2.25	"	2.50
Repacked	2.75	"	3.00
Roofing Stock—			
Foreign No. 1	nominal		
Domestic No. 1	2.00	"	2.05
Domestic No. 2	1.90	"	1.95
Roofing Bagging	1.90	"	1.95
Old Manila Rope	5.75	"	6.00

Bagging

(F.O.B. Eastern Shipping Point)

Gunny No. 1—			
Foreign	nominal		
Domestic	4.25	@	4.50
No. 1 Clean Bright—Sisal Strings	.04	"	.04½
No. 2 Clean Bright—Sisal Strings	.03	"	.03½
Sisal Jute	.02¾	"	.03
Scrap—			
No. 1	3.25	"	3.50
No. 2	1.75	"	1.85

This lovely home, built by William Rittenhouse in 1707, still stands in Fairmount Park, Philadelphia.



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From the time of the invention of the process of papermaking in China, about the beginning of the Christian era, the closely guarded secret of the art moved at a snail's pace across the world. It took a thousand years to cross Asia to Bagdad, Cairo, Morocco; four hundred years more to reach Europe. Two hundred years later it crossed the Atlantic.

In 1690, William Rittenhouse set up at Germantown, Pennsylvania, the first paper mill in America. To the people of the new land, this mill was a shining symbol of their self-sufficiency. It meant the promise of something they had dreamed of—paper not only for letters, records, pamphlets, books, but—someday—paper for a free press.

What they could not know was that this tiny mill marked the beginning of one of the wonders of the industrial world—the great American pulp and paper industry.

The dramatic story of paper is told in the sound-and-color film, "Paper—Pacemaker of Progress," and in a book under the same title. Both are presented by F. C. Huyck & Sons as a tribute to the Paper Industry. The book will be sent free upon request.

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New Burlap Cuttings	6.00	"	6.50

Old Papers

(F. o. b. Phila.)

Mill Prices, Baled

No. 1 Hard White Envelope Cuts, one cut	$100.00	@	$115.00
No. 1 Hard White Shavings, unruled.	100.00	"	—
Soft White Shavings, one cut	90.00	"	95.00
White Blank News	60.00	"	65.00
Soft White Shavings	80.00	"	—
No. 1 White Ledger	75.00	"	80.00
Ledger, colored	60.00	"	65.00
No. 1 Heavy Books & Magazines	40.00	"	45.00
Overissue Magazines	nominal		
New Manila Envelope Cuttings	80.00	"	
No. 1 Assorted Old Kraft	60.00	"	65.00
No. 1 Mixed Paper	20.00	"	—
Box Board Cuttings	20.00	"	—
Kraft Corrugated Cuttings	nominal		
Old Corrugated	30.00	"	35.00
Overissue News	40.00	"	—
No. 1 News	—	"	30.00

BOSTON

Old Papers

(F. o. b. Boston)

Mill Prices, Baled

No. 1 Hard White Shavings, unruled	7.00	@	8.00
No. 1 Hard White Shavings, ruled	7.00	"	8.00
Soft White Shavings, Mis.	6.25	"	6.50
No. 1 Fly Leaf Shavings	1.65	"	1.80
No. 2 Fly Leaf Shavings	2.00	"	—
No. 1 Groundwood Fly Leaf Shavings	1.25	"	—
No. 2 Groundwood Fly Leaf Shavings	1.25	"	1.50
Mixed Colored Shavings	2.50	"	2.75
New Manila Envelope Cuts, one cut	5.00	"	5.50
Hard White Envelope Cuts, one cut	3.37½	"	—
Triple Sorted No. 1 Brown Soft Kraft	3.50	"	3.75
Mixed Kraft Env. & Bag Cuttings	3.75	"	4.00
Kraft Envelope Cuttings	3.75	"	4.00
No. 1 Heavy Books & Magazines	2.50	"	2.60
New Manila Envelope Cuts, one cut	2.87½	"	—
New Manila Envelope Cuttings	2.65	"	—
White and Colored Tabulating Cards	4.25	"	4.50
Groundwood Tabulating Cards	1.35	"	—
White Blank News	1.65	"	—
No. 1 Assorted Old Kraft	3.50	"	—
No. 1 Mixed Paper	—	"	.95
Overissue News	1.50	"	1.75
Box Board Cuttings	.72½	"	—
New Corrugated Cuttings, Kraft	2.25	"	—
Old 100% Kraft Corrugated Containers	1.75	"	—
Old Corrugated Containers	1.50	"	—
Jute Corrugated Cuttings	1.07½	"	—
Paper Strings	2.25	"	2.50

Bagging

(F. o. b. Boston)

Gunny Bagging—			
Foreign	—	@	4.75
Domestic	—	"	4.75
Sisal Rope No. 1	6.00	"	—
Sisal Rope No. 2	5.50	"	—
Mixed Rope	5.25	"	—
Mixed Strings	2.00	"	2.50
Transmission Rope—			
Foreign	(nominal)		
Domestic	3.00	"	3.50
Manila Rope—			
Foreign	(nominal)		
Domestic	6.25	"	—
Soft Jute Rope	5.00	"	5.25
Jute Carpet Threads	6.00	"	—
Bleachery Burlap	8.50	"	9.00
Scrap Burlap—			
Foreign	—	"	4.75
Domestic	—	"	4.87½
South America	5.25	"	—
Wool Tares—			
Foreign	4.50	"	—
Domestic	4.50	"	—
Aust. Wool Pouches	5.00	"	5.25
New Zealand Wool Pouches	5.25	"	5.50
New Burlap Cuttings	6.00	"	6.50
Heavy Baling Bagging	5.25	"	5.75
Paper Mill Bagging	3.50	"	3.75
No. 1 Roofing Bagging	1.75	"	—

Domestic Rags (New)

(F. o. b. Boston)

Shirt Cuttings—			
New Light Prints	.07	@	.07½
Fancy Percales	.07½	"	.08
New White No. 1	.10	"	.11
New Light Flannelettes	.08	"	.08½
Canton Flannels, Bleached	.10	"	.11
Underwear Cutters, Bleached	.10	"	.11
Underwear Cutters, Unbleached	.11	"	.12
Silesias No. 1	.07	"	.08
New Black Silesias	.05	"	—
Red Cotton Cuttings	.05	"	—
Soft Unbleached	.11	"	.12
Blue Cheviots	.07½	"	.08
Fancy	.06	"	—
Washable	.09	"	—
Khaki Cuttings	.06	"	.07
O. D. Khaki	.07	"	—
Corduroy	.03½	"	—
New Canvas	.06¼	"	.06¾
B. V. D. Cuttings	.10	"	.11

Domestic Rags (Old)

(F. o. b. Boston)

White No. 1—			
Repacked	3.80	@	—
Miscellaneous	3.20	"	—
White No. 2—			
Miscellaneous	2.65	"	—
Twos and Blues, Repacked	2.20	"	—
Old Blue Overalls	2.25	"	2.50
Thirds and Blues, Repacked	2.20	"	—
Miscellaneous	1.80	"	—
Black Stockings	3.50	"	4.00
Roofing Stock—			
No. 1	2.00	"	—
No. 2	1.90	"	2.00
No. 3	1.35	"	—
No. 4	1.35	"	—
No. 5, Quality A	1.35	"	—
Quality B	1.20	"	—
Quality C	.95	"	—
Old Manila Rope	6.00	"	—

Foreign Rags

(F. o. b. Boston)

Canvas	(nominal)
Dark Cottons	(nominal)
Dutch Blues	(nominal)
New Checks and Blues	(nominal)
Old Fustians	(nominal)
Old Linsey Garments	(nominal)
New Silesias	(nominal)

CHICAGO

Waste Paper

(F. o. b. Chicago)

Mill Prices, Baled

Shavings—			
No. 1 Hard White Envelope Cuts, one cut	$110.00	@	$120.00
No. 1 Hard White Shavings, unruled	105.00	"	115.00
No. 1 Soft White Shavings	80.00	"	95.00
No. 1 White Ledger	55.00	"	65.00
No. 1 Heavy Books & Magazines	40.00	"	43.00
White Blank News	43.00	"	49.00
Mixed Kraft Env. & Bag Cuttings	75.00	"	85.00
No. 1 Assorted Old Kraft	45.00	"	55.00
Overissue News	28.00	"	—
No. 1 News	25.00	"	—
No. 1 Mixed Paper	20.00	"	—
Old Corrugated	36.00	"	—
Mill Wrappers	22.00	"	—

MARKETS

BLANC FIXE—Demand steady, supplies fair to good, deliveries uncertain. Pulp is currently quoted at $55 per ton, in barrels, car lots, at works; the powder is quoted at $67.50 per ton car lots.

BLEACHING POWDER—Current supplies adequate to meet most demands. Shipments sometimes delayed. Quotations are unchanged. Prices on bleaching powder range from $2.75 to $3.75 per 100 pounds.

CASEIN—Current prices on processed acid precipitated casein are reported around 32 to 36 cents per pound for domestic grades and 34 to 38c for Argentine f. o. b. shipping point.

CAUSTIC SODA—Demand far exceeds output with little relief seen for domestic or export markets. Solid caustic soda is reported at $2.50 per 100 pounds; flaked and ground offered at $2.90 to $3 per 100 pounds, car lots, at works.

CHINA CLAY—Heavy demand continues as supply remains tight. Domestic filler clay is currently $8.50 to $9 per ton, car lots. Coating clay is $12 car lot and $16 less car lot. Imported clay is $20 to $22 per ton, car lot, export warehouse; $45 less car lot for powdered.

CHLORINE—Market tight as demand continues to exceed output, stocks low. Lack of tank cars continues to hamper deliveries. Quotations unchanged. Chlorine is currently quoted at $2 to $2.25 per 100 pounds.

ROSIN—Gum rosin in drums, per 100 pounds, net, in yard New York, car lots, B, D, $10.80; E, F, G, H, I, K, M, $11.80; WG, $12.05; WW, 12.05. Wood Rosin, per 100 pounds l.c.l., f. o. b. N. Y., B, $7.45; FF, $8.95; G, H, I, $10.25; WW and X $10.45.

SALT CAKE—Demand continues to increase with supplies showing little improvement. Prices remain unchanged. Domestic salt cake is quoted at $20.00 to $24 per ton in bulk. Chrome salt cake is quoted at $16 per ton.

SODA ASH—Demand active as supplies continue short, previous orders filled. Contract orders prevail at the same high levels. Current prices, car lots, per 100 pounds, are as follows: in bulk, $1.08; in paper bags, $1.20; and in barrels, $1.60.

STARCH—Domestic demand absorbs capacity production leaving little for export. Starch prices continue strong with the pearl grade quoted at $4.67 per 100 pounds; powdered starch at $4.78 per 100 pounds, car lots, Chicago.

SULPHATE OF ALUMINA—Demand active, supply fair. Quotations continue unchanged. The commercial grades are quoted at from $1.15 to $1.30 per 100 pounds, in bags, car lots, f. o. b. works. Iron free is quoted at $1.95 to $2.25 per 100 pounds, in bags at works.

SULPHUR—Plentiful supplies to meet active domestic and export demands. Annual contracts are quoted at $16 per long ton, f. o. b. mines; the price f. o. b. at Gulf Ports is $17.50 per long ton.

TALC—Domestic and French grades are moving in fair volume with prices steady. Domestic grades are currently quoted at from $16 to $30 per ton at mines; Canadian at $35 to $45 per ton. All prices in car lots.

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IN PART

We have come today, in the history of our forests, to a definite turning point. We can look forward to a not far distant future, when all our timber will be *timber we grow,* and not merely what we *have found here.* Some parts of the country have reached this point already. This is notably true of the South which, with virtually no old-growth timber left, still produces close to half of the Nation's timber products. Almost all of this southern production comes from second growth.

How long our reserve stocks of timber will last cannot be stated with accuracy. Many factors are variable. We don't know what future losses will be by fire, insects and disease. Some authorities look for a tremendous increase in demand for wood. Others do not. But we can see the time ahead when our forest capital will be the *capacity of our land to grow trees,* rather than the volume of wood in the trees which are standing. Some give us as little as 30 or 40 years to reach this point. Others extend the time to 60 years or more. There is little to be gained by laboring this point. The day is coming, and we know it in time to prepare for it, if we will. CHAPIN COLLINS, *Mangaging Director,* American Forest Products Industries.

Production Ratio Report*

(Production as per cent of six-day capacity)

COMPARATIVE WEEKLY SUMMARIES

Current Weeks—1947		Corresponding Weeks—1946	
March 8	104.5	March 9	103.4
March 15	107.2	March 16	104.1
March 22	105.8	March 23	105.0
March 29	107.8	March 30	104.9
April 5 Revised	106.1	April 6	104.1
April 12	*102.4*	April 13	103.6

COMPARATIVE MONTHLY SUMMARIES

1946						1947	
Jan.	94.7	May	100.7	Oct.	106.4		
Feb.	98.4	June	104.6	Nov.	105.5	Jan.	102.1
March	104.4	July	94.0	Dec.	97.0	Feb.	105.9
April	102.7	August	104.7	Year Avg.	101.1	March	*106.1*
		Sept.	101.3				

COMPARATIVE YEARLY SUMMARIES

	1940	1941	1942	1943	1944	1945	1946	1947
Year to Date	85.0	89.9	103.1	88.7	88.0	88.3	99.4	105.0
Year Average	85.6	97.4	90.4	87.8	88.1	89.4	101.1	

PAPERBOARD OPERATING RATIOS†

Current Weeks—1947		Corresponding Weeks—1946	
March 8	102	March 9	99
March 15	104	March 16	100
March 22	103	March 23	99
March 29	102	March 30	100
April 5	102	April 6	99
April 12	*96*	April 13	101

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Year Avg.
1946	90	91	100	99	94	97	89	99	96	100	99	92	96
1947	99	103	*101*										

*Based on tonnage reported to American Paper and Pulp Association. Does not include mills reporting to National Paperboard Association, except in isolated cases where both paper and paperboard are produced and separate tonnage figures are not readily available. Does not include mills producing newsprint exclusively.

†Per cents of operation based on "Inch-Hours" reported to the National Paperboard Association.

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EDITORIAL

New Mills, New Opportunities

Reminiscent of the widely known industrialist who, on reaching an eastern city where he had just acquired another plant engaged in making munitions during the war, broke out a throaty baritone with a popular song phrase, "Oh what a beautiful morning" was the hearty happiness of Ernest E. Norris when he got off the train at Canton, North Carolina, recently. "One good lung full of this mountain-fresh air, taken in springtime, works more miracles than all the sulphur and molasses that little boys ever shook their heads at."

Then the president of the Southern Railway System, who was in town to attend the party which Champion Paper and Fibre gave to celebrate the starting of its new paper machine, got more specific. "So much new ground is being broken for new industries that it's beginning to look like the South's biggest crop this year will be factories. Then in a curiously juxtaposed set of paragraphs he combined an honest enthusiasm with an equally candid morsel of food for thought.

"It is particularly heartening to consider how our youngsters will benefit in later years from the broadened opportunities that are being created for them by today's wide-spread industrialization," he asserted.

But with his mind on his own business, he added a sobering afterthought.

"Skimpy earnings, averaging only three and one-fourth per cent during the past 25 years, are keeping the railroads on a starvation diet," he said. "We should have earnings of at least six per cent, but last year the return was only two and three-fourths per cent.

"Even with the recent freight rate increase and present wage and material prices, the railroads will be fortunate if they make three per cent this year."

The Toledo Plan

Now that nearly a year has elapsed since a widely heralded experiment in avoidance of production stoppage through local mediation was established in Toledo, Ohio, the benefits of the plan are seen as still dependent on various conditions which must be developed more fully. According to a study recently directed to the experience of some ten months with the plan, a good deal of distance still must be covered to reach perfection. According to the National Foremen's Institute the plan is less than effective in setting major issues in the city's largest industries, where the leaders both of industry and of labor reside outside of the city. Though it be based on a formula that assures unanimous decision of a committee representing the employer, the employe, and the public, actually the success of such a policy is found to be dependent on a human equation that includes considerable self-sacrifice by the committee members.

The service organization said its staff surveyed the work of the Toledo Labor-Management-Citizens Committee, which mediates labor disputes, and found that observers there had these "three major worries about the Plan's future:"

"The committee cannot settle the major issues affecting Toledo's biggest industries. The primary parties to these issues reside in other cities and their difference therefore must be settled by negotiations outside of the scope of the Toledo Plan.

"Top-flight management members, those with the greatest influence in the business community, haven't enough time to give to committee work. More and more associate members are taking over; but their prestige may not be high enough to prompt peaceful settlements.

"Effective union participation is dependent upon the efforts of one union leader, Richard Gosser, UAW regional director who is giving the committee 'his wholehearted support.' "

The next step according to informed sources, looks to a successful development of greater appreciation of more production as a requisite of lower costs, and a firmer mutual understanding on the part of all elements contributing to the industrial pattern.

Food Wrap Cleanliness

As good reason for self-congratulation as any that could be devised lies in the statement of E. W. Tinker that no instance of infection traceable to a paper package, nor any other health hazard in the use of paper for such a purpose has been found. That experience lends added weight to the report of the American Paper and Pulp Association committee on microbiology report on practises which the mills have adopted and found helpful in producing and handling paper which is to be used to wrap foods. The report has been circulated to the mills, not as a suggested code or set of rules or standards, but simply as a list of methods and standards which mills of long experience in this type of production have found to be helpful.

With the congratulation that is generously accorded to the committee for its thorough-going studies must go also those mills which are engaged in producing paper for food wrapping purposes must be accorded all the honor that goes with a good job well done.

W. L. Cook EDITOR

HOW YOU CAN

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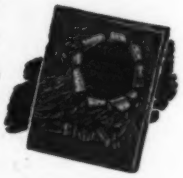
IF YOU are confronted with the problem of stretching your pulpwood reserve and keeping quality up, here's where the Du Pont Peroxide Bleaching Process can help you.

First, by making groundwood, you can approximately double the fiber yields obtained by the usual chemical pulping processes and can get more pulp to put into paper.

Second, by bleaching the groundwood with the Du Pont process, you can get papers of the same brightness at *lower* cost; brighter papers at no added cost; and still better papers at only *slightly* higher cost. Depending on the properties and qualities required in the finished paper, you can use to good advantage up to 60% of bleached groundwood in your paper furnish.

Du Pont Technical Service Men will assist you in planning, installing, operating and maintaining such a system to meet your specific requirements. Write today for our booklet "More and Better Paper from the Woodpile" or for further details. E. I. du Pont de Nemours & Co. (Inc.), Electrochemicals Department, Wilmington 98, Del.



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SECTION OF THE

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OF THE PULP AND PAPER INDUSTRY

122 E. 42nd ST., NEW YORK 17, N. Y. Edited By R. G. MACDONALD, Secretary

Quality Control for the Pulp and Paper Industry

By Charles A. Bicking[1]

Abstract

Quality control is as old as the pulp and paper industry. However, the old rule-of-thumb methods of control are no longer relied upon. Modern quality control methods are being accepted in this industry as in others because of their proven value in improving uniformity and reducing scrap.

The Shewhart control chart is the simple and logical result of the attempt to make most effective use of production measurements. As an example, control charts are used to show how on a production run of book paper high bursting strength results were obtained. Corresponding basis weight results are also demonstrated.

Use of control charts and related quality control methods extends beyond the general problem of product quality. They supplement judgment and experience in raw material acceptance, product specification, quality reporting to management, process and laboratory experimentation, development of precise tests, calibration of measuring instruments, and operator quality training.

Quality control in the pulp and paper industry is, of course, as old as the industry itself. It is inconceivable to think of even the earliest papermakers considering their product with any other intention and desire than to maintain and improve its quality. The industry no longer relies, however, on the old rule-of-thumb used by the pioneers to control their processes. The science of control has developed with the improvement of materials, machines, and techniques.

There are weaknesses in the present technical control of quality which practical men have long recognized. For example, product quality goals and customer specifications are rarely set by objective, scientific methods. The result is disregard of product standards in the mill, conflict in placing responsibility for variations, and alteration of actual measurements by testers. Routine tests are not uniform and rational methods of judging results are not always used.

A beginning has been made by qualified scientists in correcting these weaknesses. They believe that the physical universe is inherently variable in the sense that unpredictable phenomena do exist, that exact properties of materials cannot be determined, and that all knowledge is probable. This fact has been faced by such men in the paper industry as Catlin *(1)* and Knoll *(2)* who have been working with the quality control methods which make it possible to measure inherent variability of processes and identify and eliminate causes of excessive variability.

Background of Quality Control

It will be of interest to trace some of the development of the use of quality control methods in industry. For a long time, for perhaps as long as there have been technically trained men in our mills, some of the techniques which are tools of the quality control profession have been in common use. These include the use of averages of test measurements, average deviations from a lot grand average measurement, and graphs showing the distribution of test results. In many instances, the correlation between variable factors in a process has been determined, and that knowledge has been used profitably.

However, it was not until about 1930 that Dr. Walter A. Shewhart *(3)* publicized the development in the Bell Telephone Laboratories of the simple control chart technique which is today the backbone of most quality control programs. This development was capitalized at once by a few large manufacturers who grasped the idea that all things, even in science, engineering, and production, are variable.

It took the war, however, and the urgent necessity of producing ordnance and other material that had to meet critical operating tests to bring rapid application of quality control techniques throughout industry. Upon the request of the War Department, the American Standards Association issued three standards *(4)* which are still basic references on the use of the control chart technique. These standards drew heavily from a manual supplement *(5)* issued by the American Society for Testing Materials in 1935.

The training necessary to familiarize large numbers of men from industry with the methods of quality control continued throughout the war under the Engineering, Science, and Management War Training Program of the Office of Production Research and Development. This program reached thousands of men in hundreds of plants throughout the country. Almost all plants engaged in war production made use of quality control methods to great-

[*] Presented at the Annual Meeting of the Technical Association of the Pulp & Paper Industry, Hotel Commodore, New York, N. Y., Feb. 24 to 27, 1947.

[1] Hercules Powder Company, Wilmington, Del.

er or lesser degree. Many men who worked with the quality control techniques or who supervised plants in which the methods were used are now back at their peacetime occupations. It is likely that, as a result, widespread trial and evaluation of the use of quality control will occur in the pulp and paper industry as it is occuring in many related industries.

It is inevitable that this should be so because the applicability and the economic value of the method have been proved in plant after plant. The literature of quality control is full of examples of savings realized which often run into many thousands of dollars.

The beauty of the idea of using modern quality control methods is that the basic tool, the control chart, is so simple that it can be used by any reasonably intelligent operator and is capable of being interpreted and acted upon by any foreman or supervisor. A minimum amount of simple arithmetic is required and the only other skill required is the ability to plot a series of measurements on a chart.

Making Effective Use of Data

It is easy to demonstrate how the control chart is the simple and logical result of the attempt to arrange production or research test measurements for most effective and powerful use.

Table I gives a set of basis weight measurements on samples from consecutive reels of a material sheeted on a fourdrinier machine. These original measurements in grams per square foot are listed in vertical columns in order of production.

TABLE I.—ORIGINAL DATA—GRAMS/SQ. FT.

36.0	33.5	37.6	34.8
37.2	34.9	36.2	32.2
38.0	36.0	37.0	32.8
37.6	37.7	37.0	31.4
37.0	36.4	37.7	36.2
36.2	34.5	37.4	33.3
36.8	39 0	35.4	33.8
36.6	38.6	38.8	37.0
37.2	38.2	32.8	39.6
36.8	39.0	35.4	33.8
36.6	38.6	38.8	37.0
37.2	38.2	32.8	39.6

It obviously is difficult to determine much about the process from this arrangement of the test results except to determine the degree of failure to meet specifications. The specifications, for the order of which the reels tested for Table I are a part, were 37.5 grams per square foot maximum; 32.8 grams per square foot minimum. It can be seen that there were some heavy and some light samples.

Some help is given in the study of these original data by the use of a line chart such as the one in Fig. 1.

In this chart, the measurements from Table I are merely plotted in chronological order. A chart is always easier to comprehend than a table and this device is quite customary in the presentation of data.

When the measurements are arranged in order of magnitude, the data begin to be more intelligible. Table II shows the data from Table I arranged in chronological order in what is known as an ungrouped frequency distribution.

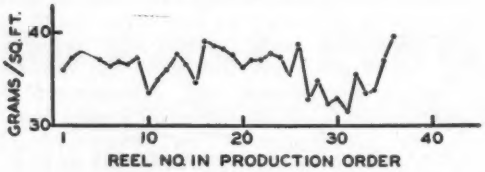

FIG. 1
Conventional Time Series Chart—Sheeting Machine Data

TABLE II.—UNGROUPED FREQUENCY DISTRIBUTION—GRAMS/SQ. FT.

31.4	34.9	36.8	37.6
32.2	35.4	37.0	37.7
32.8	36.0	37.0	37.7
32.8	36.0	37.0	38.0
33.3	36.2	37.0	38.2
33.5	36.2	37.2	38.6
33.8	36.2	37.2	38.8
34.5	36.4	37.4	39.0
34.8	36.6	37.6	39.6

The high, low, and middle values may be seen at a glance. Some idea is given of how the process results are varying between the extremes.

Still greater compactness is needed to make apparent and useful the significance of so many numbers. It is possible to continue to condense the data by grouping them at equal measurement intervals, indicating the number of values falling within each interval. This has been done in Table III.

TABLE III.—GROUPED FREQUENCY DISTRIBUTION—GRAMS/SQ. FT.

Cell No.	Cell Boundaries	Frequency
1	30.55 — 31.55	1
2	31.55 — 32.55	1
3	32.55 — 33.55	4
4	33.55 — 34.55	2
5	34.55 — 35.55	3
6	35.55 — 36.55	6
7	36.55 — 37.55	9
8	37.55 — 38.55	6
9	38.55 — 39.55	3
10	39.55 — 40.55	1
	Total	36

The result is known as a grouped frequency distribution. The frequency is the number of test results which fall within each interval or cell. The weights within which most of the product falls are apparent. It becomes easy to study the two principal things that it would be desirable to know about this production run: its average, and how the reel basis weights are distributed about the average.

The device by which these relationships may be studied in the frequency distribution curve. Figure 2 is this curve for the data in Table III.

The horizontal scale is the basis weight measurements; the vertical scale, the frequency of test measurements at each measurement interval. The curve drawn through the resulting points has been smoothed for clarity in describing the relationship of its parts.

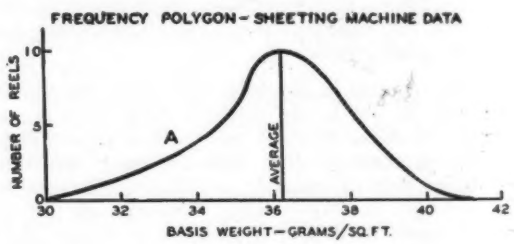

FIG. 2
Frequency Curve—Sheeting Machine Data

It is obvious that if an adjustment is made to the process or if some unplanned change occurs in raw materials, machine conditions, or degree of operator care, a shift may occur either in the average or distribution or in both. Thus, curves of this sort drawn at successive periods will show clearly whether these shifts in average or in variability are satisfactory with respect to specifications. It is clear, further, that when the process is in most satisfactory condition, the average will be centered between the specifications and the distribution curve will be symmetrical and narrow.

This desired stable condition in the process corre-

sponds with what is known by scientists as a "normal" condition and the graph of the distribution is then a "normal curve"; symmetrical, and with a predetermined proportion between its heighth and width. The important thing to those in industry is that this normal curve which has been shown to fit data from biological and social sciences also fits a stable condition in most production processes. It is to be recognized that every thing varies and it is possible to perceive that normal production varies according to the scientists' "normal" law. This concept can be adapted to special needs and a very simple means of detecting lack of normality devised.

Basis for the Control Chart

It has been discovered that even if the distribution of test measurements from a process is not normal, a very nearly normal distribution may be obtained by averaging small, successive samples, or subgroups, of the data and making a frequency distribution of the averages. To obtain Table IV, successive

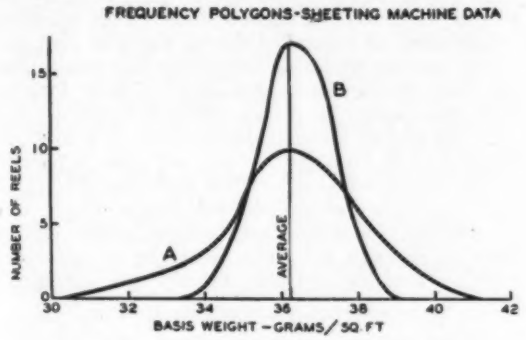

FIG. 3
Frequency Curves—Sheeting Machine Data

groups of four original measurements from Table I were averaged and tabulated in order of production.

TABLE IV.—AVERAGES OF SUCCESSIVE GROUPS OF FOUR WEIGHTS—GRAMS/SQ. FT.

37.2
36.7
35.4
36.9
37.7
37 3
36.0
33.2
35.7

For example, the first four test results in column 1 of Table I averaged 37.2 grams per square foot, the second four averaged 36.7 grams per square foot, and so on, down the other three columns in turn. This table is just a preliminary step to the distribution of averages of sub-groups of four measurements given in Table V.

TABLE V.—DISTRIBUTION OF AVERAGES OF GROUPS OF FOUR

Cell No.	Boundaries	Freq.	No. of Reels
1	30.55 — 31.55	0	0
2	31.55 — 32.55	0	0
3	32.55 — 33.55	1	4
4	33.55 — 34.55	0	0
5	34.55 — 35.55	1	4
6	35.55 — 36.55	2	8
7	36.55 — 37.55	4	16
8	37.55 — 38.55	1	4
9	38.55 — 39.55	0	0
10	39.55 — 40.55	0	0
		9	36

This table is similar to Table III except that the total frequency is now only 9 (the number of small sub-groups) compared to 36 (the number of individual tests). A fourth column, "No. of Reels,"

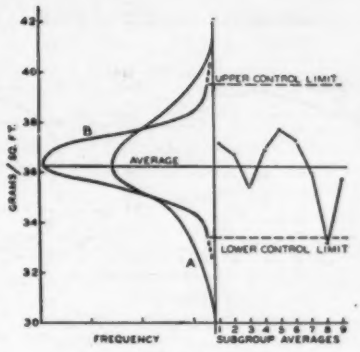

FIG. 4
Relation of Distributions to Control Chart—Sheeting Machine Data

serves to show how the two tables are tied together.

The relation between the original distribution curve for individual test results (curve A) and the new distribution curve for averages of sub-groups of four tests (curve B) is shown in Fig. 3.

Curve B is, in effect, curve A with the extremes of variability averaged out. Like curve A, it has been smoothed in this problem for ease in illustration. The leveling effect of averages is too well understood to need further comment. What is left between the extreme ends of the scale of curve B is the inherent variability of the process. Thus a means of expressing the "normal" condition of the process being studied has been determined. Henceforth, it may be assumed that any average of sub-groups of four tests from the process which deviates further from the chosen grand average is not the result of random causes, or chance causes, which are always present under normal conditions. Some external, assignable cause of variation is acting on the process. It is worthwhile to look for such a cause for variability in condition of raw materials, in the conditions surrounding the run on the machine, or in the adjustments the operators have made. We are guilty of economic waste when we fail to look for trouble which does exist when the distribution of averages of small sub-groups is not normal. We are equally as guilty when we try to find causes for variations within this normal distribution of curve B. They are not likely to be found because they occur only by chance and are inherent in the conditions built into the machines, the specifications set on the raw materials, and the skill developed in the operators.

Use of the Control Chart

If Fig. 3 is rotated counter clockwise through 90°, the tails of curve B may be extended as horizontal, parallel dotted lines as in Fig. 4.

These dotted lines are the upper and lower "control limits" for the control chart for averages of subgroups of four test measurements. When the averages from Table IV are plotted in chronological order, as on any line chart, the result of the effort to condense the process data and make it useful for improving the process has been reached. The control limits may now be extended and future test results charted as soon as they become available. If the result is within control limits and no trend toward the limits is shown, no action is taken. The process is doing as well as may be expected without making a significant change in conditions. Naturally, there may not be satisfaction with spread of the control limits and one may wish to lessen the spread by

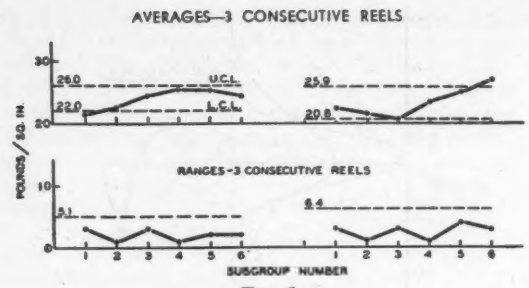

FIG. 5
Control Chart for Basis Weight
Left—Run No. 1 Right—Run No. 2

using better raw materials, improving equipment, or providing operators with greater skill.

If, however, future results fall outside the control limits, something has happened that can be identified and action to remove the cause will guarantee conformance to the limits in the future. There is a measure of what specifications can be met and an immediate indication of when something has gone wrong that may prevent meeting them.

Fortunately, one does not have to go through all the steps just followed in order to determine the inherent variability of processes. Dr. Shewhart's great contribution to industry is used; a simple method of obtaining the control chart limits by substituting averages obtained by simple arithmetic in equally simple formulas.

Table VI shows the entire arrangement of data, calculations, and substitutions required to calculate the control chart limits for Fig. 4.

TABLE VI.—CONTROL CHART COMPUTATIONS FROM ORIGINAL DATA

Subgroup	Measurements—g./sq. ft.				Av., $\overline{X}$	Range, R
1	36.0	37.2	38.0	37.6	37.2	2.0
2	37.0	36.2	36.8	36.6	36.7	.8
3	37.2	33.5	34.9	36.0	35.4	3.7
4	37.7	36.4	34.5	39.0	36.9	4.5
5	38.6	38.2	37.6	36.2	37.7	2.4
6	37.0	37.0	37.7	37.4	37.3	.7
7	35.4	38.8	32.8	34.8	36.0	6.0
8	32.2	32.8	31.4	36.2	33.2	4.8
9	33.3	33.8	37.0	39.6	35.7	6.3
				Totals	326.1	31.2
				Grand Average $\overline{\overline{X}}$	36.23	
				Average Range $\overline{R}$		3.47

Limits for Averages
$\overline{\overline{X}} \pm A_2\overline{R} = 36.23 \pm (.729 \times 3.47) = 38.76$ and 33.70 grams/ sq. ft.
Limits for Ranges
$D_3\overline{R} = 0 \times R = 0$
$D_4\overline{R} = 2.282 \times 3.47 = 7.9$ grams/sq. ft.
Constants A_2, D_3, D_4 from page 39 in American Standard Z1.3.

Successive sets of four test results from Table I have been arranged horizontally in sub-groups. The average $(\overline{X})$ column is the average of the four measurements in each sub-group (recognizable as the same as Table IV); the range (R) column is the difference between the highest and lowest weight in each sub-group. The grand average $\overline{\overline{X}}$ and the average range $\overline{R}$ are arrived at by adding the respective columns and dividing by the number of sub-groups. These values are substituted in the control chart formulas using factors A_2, D_3, and D_4 obtained from a table which may be found in the control chart standards. It must be remembered that the choice of these constants is based on the number of individual tests in each sub-group and not on the number of sub-groups. There are certain recommended practices regarding the choice of sub-groups, the size of sub-groups, and the number of sub-groups required. These are set forth clearly in the control chart standards so that it is not necessary to digress at this point to consider them in detail.

The formulas are extremely simple and the limits arrived at are easily drawn on cross section paper. The chart for ranges has not been shown but its use will be illustrated in a second example which follows. The ranges (R) from the table are simply charted in chronological order between the limits for ranges calculated from the formulas.

Bursting Strength Example

The way in which control charts are used to assist in production control is illustrated by an example from the manufacture of book paper. The results of bursting strength tests on samples taken from successive reels in two short, preliminary runs are shown in Fig. 5.

The specified test was 29 p.s.i. The control limits for run No. 1 were 26 and 22 p.s.i. and the grand average for the run was 24 p.s.i. The control limits were based, for this and succeeding runs, on subgroups of three successive tests. The sub-group ranges were all controlled during the first run, indicating that the choice of sub-group size was rational and that, during the approximately 2-hour long periods represented by the sub-groups, external causes have not unduly affected the process. The first subgroup average, however, is out of control (outside the lower control limit). This indicates that at the time the reels included in sub-group No. 1 were being made, some condition existed which did not carry on through the run. Since the objective was a higher bursting strength, the obvious explanation

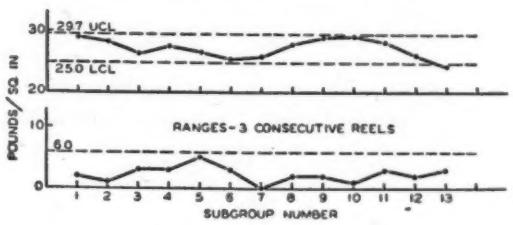

FIG. 6
Control Chart for Bursting Strength
Run No. 3

was that the operator had taken notice of this low result, found the cause, and taken proper action to bring results more in line with specification. This is the procedure by which progress in controlling the process is made. When carried to its conclusion by use of additional control charts, it should result in control at the specified quality level.

The results of the first run were all lower than anticipated. For a second run, the same specification was maintained. Run No. 2 shows the progress made in raising the bursting strength test result. The average for this run is about the same but the variability (as portrayed by the wider control limits) is slightly greater. The third sub-group went out of control at the bottom of a downward trend, but corrective action was apparently taken and the direction of the trend changed. As a result, the final subgroup went out of control on the high side. Since this is not undesirable, the proper adjustment to level off the process at a significantly higher burst value has apparently been made.

A sample from run No. 2 was therefore accepted as standard and the main run for the order being

filled was begun. The results of this run No. 3 are given in Fig. 6.

Once again the range chart shows perfect control. The average chart has a much higher grand average, 27.31 p.s.i., and control limits at 29.67 and 24.95, which are about as narrow as the limits during the original run. The control shown is good, only the last sub-group being outside the lower limit. This may be significant, particularly since it is at the end of a trend, and warrants investigation. It will always be economical to remove all of the causes of lack of control if possible before further production.

In general, this run is very satisfactory and the control limits would be used for any future run on this grade of paper.

Relation of Bursting Strength to Basis Weight

One of the variables affecting the burst test is the basis weight of the sheets. So, it may be of value to look at control charts for the basis weight tests on the same three runs of paper. The control charts for basis weight of sheets 25 × 38 — 500 made in runs Nos. 1 and 2 are given in Fig. 7.

Uniformity is indicated by the good control in both average and range charts. The slight differences in grand average and spread of control limits is not significant. It is not possible to tie in lack of control on the burst test for runs Nos. 1 and 2 with variations in basis weight.

The basis weight charts for run No. 3 are shown in Fig. 8.

The grand average is slightly higher, but the significant difference in this chart is the much narrower control limits than in runs Nos. 1 and 2. Thus, knowing that basis weight was in good control between narrower limits and that basis weight correlates with bursting strength, it would be expected that the most satisfactory burst results would be obtained during run No. 3. The seventh subgroup is out of control on this basis weight chart and though it would be economical to look for reasons for it, the variation was apparently not great enough to cause lack of control in the bursting strength at the corresponding reel.

It may be concluded that basis weight affects bursting strength but that, throughout these three runs, basis weight was so uniform that control of the burst was not affected by it.

It has been possible to describe only partially the opportunities for improvement in process quality level and uniformity implicit in the use of control charts. Reference to the American Standards will answer many of the questions that may arise upon attempting to start using the charts.

Control charts and other related quality control

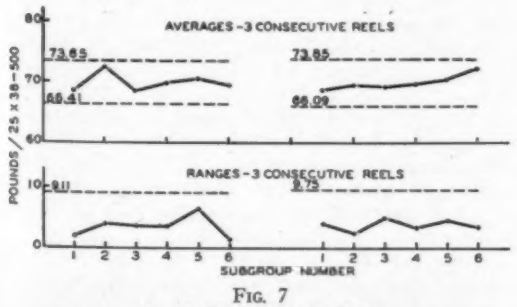

FIG. 7
Control Chart for Basis Weight
Left—Run No. 1 Right—Run No. 2

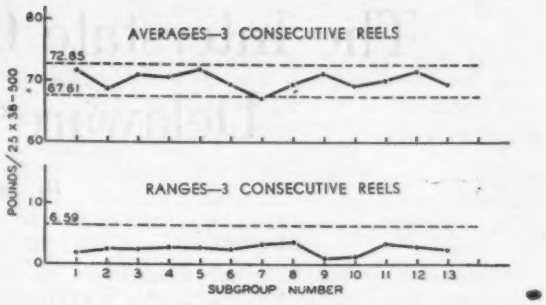

FIG. 8
Control Chart for Basis Weight
Run No. 3

methods are being used successfully at present in an ever increasing number of plants in the paper industry. Their use extends beyond the general problem of product quality. Some problems in which they are used to supplement judgment and experience are raw material acceptance, product specification, quality reporting to management, process and laboratory experimentation, development of precise tests, calibration of measuring instruments, and operator quality training.

Even more than in the piece-part industries where it had its greatest use during the war, quality control is being accepted and expanded in chemical, pulp and papermaking, and related industries. Easy to apply, quick to show results, it offers an additional powerful tool to the practical man in the mill.

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New TAPPI Members

The Executive Committee of the Technical Association of the Pulp and Paper Industry has elected the following to membership:

Eugene Bartlett, Assistant Engineer, British Columbia Pulp and Paper Co., Ltd., Port Alice, B. C., Canada, a 1932 graduate of the University of British Columbia.

Curry M. Carmichael, Vice-President, Shawinigan Chemicals Ltd., Montreal, P. Q., Canada, a 1909 graduate of Southern University.

Lonnie L. Gibbs, Superintendent of Power, Grossett Paper Mills, Grossett, Arkansas.

Harold M. Gross, Assistant Chemist, New Brunswick International Paper Co., Dalhousie, N. B., Canada, a 1943 graduate of McGill University.

Don M. Hawley, President, Hawley Products Co., St. Charles, Illinois, a 1913 graduate of the University of Washington.

Merle A. Heath, Research Associate, The Institute of Paper Chemistry, Appleton, Wisconsin, a 1932 graduate of the University of Wisconsin.

Vance N. Jenkins, Research Supervisor, Union Oil Co. of California, Los Angeles, California, a 1918 graduate of Southwestern University.

C. G. Russell Johnson, Paper Mill Engineer, Kimberly-Clark Corp., Neenah, Wisconsin, a 1925 graduate of Northwestern University.

The Interstate Commission on the Delaware River Basin*

By James H. Allen[1]

Abstract

The work of the Interstate Commission on the Delaware River Basin is unique in that it represents a cooperative effort by the states of New York, Pennsylvania, Delaware, and New Jersey to improve the conditions and usage of the Delaware River water. The commission has comparatively little authority but utilizes persuasion as its primary means for obtaining results. The work of the commission has been highly successful; the details of the progress made are here presented.

While small in area—12,000 square miles—nowhere in the country is there a river system more important and valuable than the Delaware. It serves and is the common property of four states— New York, New Jersey, Pennsylvania, and Delaware—having a combined population of more than 28,000,000 persons, 21% of the entire population of the United States. Of this number more than 5,000,000 reside within the confines of the Delaware Valley.

The Delaware River, the greatest fresh-water port in the country, second only to New York in volume of business, is a major economic factor in the lives of the people within the basin and the nation as a whole.

In 1936, the four Delaware Basin states delegated the responsibility for devising programs for the development and conservation of the resources of this interstate watershed region to the Interstate Commission on the Delaware River Basin, now more popularly known by its abbreviated name—"Incodel." This joint governmental agency is composed of five state officials representing the legislative, executive, and administrative branches of government in each of the four supporting states.

It is serviced by technical advisory committees consisting of groups of officials from each of the states who are expert in the particular field upon which the commission may be focusing its attention. Among others, such advisory committees include those dealing with stream pollution, water supply, soil and forest conservation, planning, research, education, industry, and finance.

The commission functions with a small operating staff which includes an executive secretary, engineers, technicians and draftsmen, and a secretarial force. It also has access to the combined facilities and technical resources of the participating states and of the federal agencies operating within the region. The staff provides for continuous correlation of activities, a most important function in the formulation of practical programs. It discloses opportunities for cooperative effort and provides a clearing house in which existing information and facilities may be analyzed or utilized without conflict or duplication.

The commission operates within an annual budget of $35,000 a year obtained from equitably apportioned appropriations from each of its supporting state governments.

Overall Objectives

The story of Incodel is a story of interstate cooperation. This project, begun a decade ago, was designed as a demonstration of the willingness and the capacity of a group of state governments to work together toward a solution of problems extending beyond the boundaries of a single state. This experiment in intergovernmental relations was undertaken and has been conducted largely without the benefits of precedents, wholly without great appropriations of public funds, and without substantial grants of political power and authority. Voluntary cooperation has been its only tool. It has endeavored to supplement, not supplant, those agencies of the four state governments operating in the Delaware Basin that are charged with the responsibility for state administration of land and water resources programs. It has tried to broaden their scope and to blend their efforts into a unified plan and program for the utilization and conservation of the natural resources of the Delaware River Basin.

An understanding of the water resources problems in the Delaware River can best be obtained from an account of the work of Incodel.

Stream Pollution Abatement

Outstanding among achievements in control of water pollution in the Delaware River Basin during the past ten years has been the preparation and official adoption of an interstate agreement for the correction and control of pollution in the waters of the river. This reciprocal agreement, drafted and negotiated by Incodel, establishes basic standards of cleanliness or purity for the main stream and for its tributaries at their points of confluence. In addition to a pledge of administrative cooperation by each State Department of Health, the provisions of the agreement have been enacted into law in each of the four states of the basin. For the first time, these states, through their appropriate administrative departments, are acting in unison toward the common end of abating and preventing excessive pollution in the river and its tributaries.

At the recommendation of the commission the states have adopted the policy that, insofar as possible, the problems of stream pollution should be attacked concurrently by the public and by industry. But they are firmly determined that the responsibility for taking the lead, where such step becomes necessary, must rest squarely upon the public. Industry certainly cannot be called upon to stop using streams as a scot-free conveyor belt for their wastes as long as municipalities continue to use water courses to carry away the raw products of the digestive systems of their inhabitants.

Despite the fact that construction activities in the field of stream pollution abatement projects had to be deferred for more than five of the commission's ten years of operation because of the war and its

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aftermath, excellent progress has been made in controlling pollution in the Delaware watershed. Until the outbreak of hostilities, more than fifty municipalities within the basin spent over 10 million dollars for the construction of sewage collection and treatment plants.

Industry kept pace with, if not exceeded, this progress. Notable examples include work done during the war by the Bethlehem Steel Company and the Publicker Commercial Alcohol Company. The steel company expended more than a half million dollars for the construction of a plant for the recovery of fine size particles of iron ore which were formerly discharged wastefully into the Lehigh River. Simultaneously it carried on dredging operations to recover enormous quantities of such material which had accumulated in the bed of the stream. Keeping these wastes from the rivers was found to be a paying proposition.

The second case involving the Publicker Commercial Alcohol Company in Philadelphia arose as the result of an order given to that company by the War Production Board to change the base of its process of manufacturing commercial alcohol from molasses to grain products. The company made the change, of course, but was unprepared to meet the consequences. In 1944, it was discharging mash refuse into the Delaware, more devastating in effect than the combined sewage of Philadelphia and Camden. Islands of this mash extending several thousand feet up and down the river in front of the plant and well out toward the mid-channel of the stream were not uncommon. The condition has since been corrected. Participating in the Incodel program for stream pollution abatement, the Reconstruction Finance Corporation financed the completion of two treatment plants to handle the company's "used" water, costing over 10 million dollars. This installation also is proving to be a sound investment. The waste previously being thrown into the river is now being processed profitably as food for cattle.

The author shall refer to the Commission's program to unchoke the Schuylkill River of the accumulation of over 30 million tons of fine size particles of coal arising from wasteful mining practices in the anthracite coal region in the basin.

It is regretted that the paper and pulp industry has not yet met its full responsibility in the stream pollution programs for the Delaware watershed. There are over fifty industries of this category in the area. Outstanding among them are Scott Paper Company, Container Corporation, National Container Corporation, and Paterson Parchment Paper Company. None of them as yet is doing an honest-to-goodness job in preventing the defilement of the region's streams by their wastes.

However, a few of the smaller companies have pointed the way for the industry as a whole, particularly the Durham Paper Company, located at Riegelsville. Ably serviced by Dr. Miller, chairman of this session, as consultant, this company soon will put a plant into operation which, it is expected, will successfully handle and process all of its wastes.

With the war's end and the apparent early lifting of restrictions on labor and material for normal public works construction, the commission's pollution abatement program undoubtedly will soon go forward with determination. Blueprints and specifications are complete for the construction of municipal sewage and industrial waste treatment plants to the tune of approximately a 100 million dollars. Most notable and largest of these projects are those for Philadelphia and Camden, estimated to cost 50 million dollars. Contracts will probably be let for such work within the present year and it is believed that the projects will be completed and in operation within the next five years.

This accomplishment will mean more to the future development and prosperity of the lower Delaware River Basin than any single or any combination of public works undertakings that could be made. It will relieve this section of the river of its unenviable, but fully justified, reputation of being the most foully polluted stream in the nation. It will mean that Philadelphia can continue to secure an adequate supply of suitable water from its present source on the Delaware River and thus postpone the premature spending of upwards of 300 million dollars for a new source of water supply from the upper mountain region of the basin. Philadelphia and Camden have a definite obligation to process their municipal refuse and discharge it into the Delaware in a harmless and inert condition. That responsibility is a *must* regardless of Philadelphia's water problem. The city's decision to take first things first is wise and sound.

Scrubbing of the lower Delaware also will result in a tremendous enhancement of its port and harbor facilities. It will make available a better source of water for industrial purposes. It will provide an impetus toward the restoration of the shad fish industry, an important cash crop which amounted at one time to a catch of over 10 million pounds annually.

The remainder of the stream clearance program will be distributed widely throughout the entire watershed. It will consist of numerous small municipal installations and a sizeable program for industrial waste treatment. All of the states, particularly Pennsylvania and New Jersey, are prepared to insist upon the prosecution of this work as speedily as reasonably practical.

As it concerns the paper industry, practically all of the delinquents recently have shown signs of awakening. Almost without exception they have recently employed consulting services and as a result, many now have plans and specifications in readiness to commence construction.

Water Supply Diversion Projects

For twenty years before Incodel, the States of New York, New Jersey, and Pennsylvania had been at odds over their right to draw upon the flows of the Delaware River Basin for public water supplies. Two efforts toward arriving at an agreement as to how these waters could be divided and allocated among the States were made, in 1925 and 1927. Both failed. Subsequently, two years of litigation at a cost to the states of well over a million dollars, provided only a partial answer to one phase of the problem, when, in 1932, the United States Supreme Court authorized a diversion of Delaware River waters for use in New York City under specified conditions. Future needs in the three states faced the same entangled and costly procedure. These needs were growing.

The states, through Incodel, approached this problem jointly, not independently; cooperatively, not competitively. Starting with the principle of "equitable division," established in the Delaware River case, the states undertook a study adapting the rules established by the Supreme Court to other water supply

projects, proposed or assumed. After more than three years of careful cooperative study and analysis, they arrived at an agreement as to the conditions under which any state, at any time, can take the water it needs from the Delaware River Basin for public water supply. Such conditions provide for the release of water previously stored from flood flows to augment the natural dry weather flows of summer and fall. This agreement was then incorporated into a concurrent legislative bill which is now law in each of the participating states.

Schuylkill River Restoration Project

The Schuylkill River and its tributaries are an important segment of the Delaware River system. For more than a century these streams have been the depository for wastes resulting from the operation of collieries in the coal fields, with the result that today more than 30,000,000 tons of coal culm line the bed and the banks of the river. Convinced that sufficient facts on the Schuylkill problem had been accumulated over the years, the Interstate Commission on the Delaware River Basin set out in 1943 to develop a coordinated plan for restoring the Schuylkill through suggesting the assignment of specific responsibilities to the Federal Government, the Commonwealth of Pennsylvania, and the anthracite coal industry.

For the first time during the many years of discussion of this problem, a definite action program has been developed and accepted by the responsible agencies, both public and private. The project is now under way.

Soil and Forest Conservation

In the Delaware River Basin, more than 50% of the growth-producing cover of agricultural areas in the basin has been washed away, and a substantial proportion of land formerly used for farming is almost beyond redemption. Closely coupled with erosion is the problem of the basin's woodlands. Ruthless cutting of the forests and the destruction of the ground cover and humus layer have developed conditions unfavorable to tree growth—one of nature's most effective measures for flood control and stream flow regulation.

Governmental agencies, state and federal, have investigated these conditions and have developed corrective measures which would restore most lands to their proper use and productivity. But these efforts have not been properly coordinated. To accomplish this objective Incodel is now directing its attention to developing a unified program—federal, state, and local—dealing with problems of soil conservation and the development of forest resources. It is following its established pattern of seeking the voluntary cooperation of all interested agencies, both public and private, in the development of a practical program of action. These efforts already are bearing fruit.

Other Allied Activities

Incodel's plans for the development of an orderly program for control of land and water resources in the Delaware Basin involved, from the beginning, a broad concept of the inter-relationships of water pollution, water supply, soil conservation, reforestation, recreation, flood control, navigation, and other land and water uses and abuses. While major attention and effort have been given to a solution of those specific problems which were of regional importance, which were most urgently needed, and which would be immediately useful, many allied studies were carried along concurrently. A sampling of the scope and variety of this activity may be gained from the following summary.

Recreation

The potentially tremendous recreational area in the Upper Delaware Valley has been subjected to special study. A carefully drafted program of planned development (as opposed to exploitation) was prepared and has been locally sponsored.

Salinity in the Delaware

During summer periods of low-flow in the river, the salt content of the tidal section of the river below Philadelphia impairs the quality of the water and damages industrial equipment. Incodel has investigated several proposals and, in cooperation with the industries in the affected area, it has found a practical solution.

Multiple Purpose Reservoirs

An exhaustive investigation of the Army Engineers' proposal to construct a series of dams and reservoirs in the Delaware led Incodel to conclude: (1) the "highest use" of the waters of the Delaware watershed is for public water supply and this use has precedence over all others; (2) the development of the Delaware for hydro-electric power *alone* would not be economically attractive; and (3) while power developments *might* be combined advantageously, under public control, with a joint water supply project for Philadelphia and northeastern New Jersey, there appears to be no need for such a joint supply and the advisability of its development is, for the time being, questionable.

Inter-Governmental Relations

It is apparent that what happens to the land, the forests and the waters determines what happens to the people. The responsibility to develop programs for the proper use and conservation of the resources of interstate river basins lies primarily with the states within the basin. The Federal Government, because of its jurisdiction over navigation, will always exercise control and influence any program for the basin. But, the commission is firmly convinced that federal interest should never overshadow that of the state and local governments. In fact, it believes that in the Delaware River Basin, and most other interstate river systems, federal activities should be incidental and subordinate to those of the governmental units comprising the region.

On the basis of this premise and in order to give it strength, the commission has been especially active in participating in programs to bring about the existence and maintenance of a proper balance in relationships among the agencies of federal, state, and local governments responsible for the formulation and execution of programs for the development and conservation of the resources of interstate rivers. It was because of such activities that Congress was finally prevailed upon to include a specific declaration of policy in recently enacted flood control and navigation laws which, in effect, provides that the states shall be included in a partnership with the Federal Government in the determination of plans for the unified development of river basins.

This was one of the greatest services ever rendered to the nation. It put an end to the trend that had been going on for many years which would have ultimately led to the complete transfer of au-

thority from the states to the Federal Government over the control of the nation's rivers and their watersheds.

Subsequently the commission was of tremendous influence in the successful campaign carried on by water resources agencies from more than thirty states to resist the movement of centralizationists to blanket and smother the nation with federally controlled river development agencies patterned after the Tennessee Valley Authority. Had it not been for this program, such a result might very possibly have materialized during recent years. The danger is not over, although it is unlikely that the new Congress will look with favor upon such proposals.

In the Delaware Basin, the people and their elected officials fully realize the need of a unified program to guide the development of the resources of the basin, both human and natural. They are convinced that in Incodel they have an agency fully and competently equipped to handle this task. They believe that the procedure calling for sincere cooperation on a hand-in-hand basis, rather than at arm's length, by all of the interested agencies of the three levels of government constitutes "Democracy on the March."

Delaware Valley TAPPI Discusses Research

The Delaware Valley Section of the Technical Association of the Pulp and Paper Industry met at the Engineers Club, Philadelphia, Pa., on Friday evening, April 11, 1947. Kingdon Watt of the Curtis Paper Company presided as chairman. John P. Weidner was in charge of the program. About 80 attended.

K. W. Britt presented the report of the nominating committee as follows: Chairman, John Macadam, National Vulcanized Fibre Company, Yorklyn, Del.; Vice Chairman, Kingdon R. Watt, Jr., Curtis Paper Company, Newark, Del.; 2nd Vice Chairman, John P. Weidner, Container Corporation of America, Manayunk, Pa.; Secretary-Treasurer, Lois V. Hans, Hercules Powder Company, Wilmington, Del.; Executive Committee, John Carson, Dill & Collins, Div., Philadelphia, Pa., and George D. Fronmuller, Scott Paper Company, Chester, Pa.

R. G. Macdonald, National Secretary of TAPPI was present and outlined some of the projected plans of the Technical Association in the current year.

The principal speaker was M. A. Dahlen of E. I. du Pont de Nemours, Inc., Wilmington, Del., who spoke on "Long Range Chemical Research—Selection of Problems, Formulation and Progress of Program —Results and Significance.

Dr. Dahlen indicated four types of company research:—1. Improvement in product and process; 2. Initiation; 3. Creative; and 4. Pioneer. The types of problems to be considered are: 1. Need for new product; 2. Need for uses of a new product; 3. Need for new methods of using products; 4. New techniques and reaction; and 5. Pioneering studies of fundamentals.

To illustrate these classifications Dr. Dahlen cited a number of case histories. He first described the development of freon in refrigeration which was primarily a chemical study by Dr. Midgeley in which a flourine compound was finally found to be safe and efficient, particularly for large establishments that had central air conditioning systems.

This was followed by the story of tetraethyl lead in which peroxide was produced as a byproduct. Uses were found for the peroxide in bleaching textiles and groundwood and as a reactant in rocket propellents.

Following this he traced the development of new dyestuffs and of neoprene and nylon. The latter was a result of fundamental research by Dr. Carothers and Neulands in which linear polymerization studies were the principal objectives. In the study of synthetic musks much was accomplished in the development of perfumes. Products such as lucite and methyl methacrylate were the results of pure research studies.

Dr. Dahlen pointed out that money spent for research should be looked on as premium for business insurance. Research requires patience. It took ten years to develop neoprene and six years for nylon. The future will demand severe technical competition. For small companies that cannot support fundamental research Dr. Dahlen recommended the use of mass research through central technical institutes.

Those present included: Edw. J. Albert, A. I. Andrews, Nelson P. Arigo, A. L. M. Bixler, Alan R. Boyd, C. L. Brickman, H. C. Brill, K. W. Britt, S. G. Briscoe, Philip G. Bruno, L. K. Burnett, L. B. Carothers, John Carson, J. D. Clark, O. C. Cordes, J. R. Coursault, M. A. Dahlen, H. J. De Soi, John H. Dittmar, W. P. Dohne, A. Egaw, August S. Erspamer, P. C. Evanoff, James S. Evans, J. M. Farnum, H. J. Farra, G. A. Farrah, John S. Pasoldt, Jeanne H. Fisher, H. L. Geer, Jane Gilker, Frederick W. Goetz, J. F. Good, Lois V. Hans, A. M. Hartley, J. C. Harper, Alex. McInnes, J. A. Paciello, Nard Jones, R. G. Macdonald, Edward C. Molin, L. T. Kratz, D. K. McCurdy, Geo. D. Lord, Harry F Lewis, S T. Jamison, A. Jackson, Harry C. Kinne, Jr., George Lane, Heinz A. Lips, W. B. Morehouse, R. K. Staman, Clark E. Snook, Wayne D. Stephenson, Emil R. Panaric, John N. Tuttle, J. Carl Schmidt, Edw. A. Shallcross, Mildred H. Simon, T. W. Toovey, C. H. Rice, Howard H. Street, James Traill, Jr., William D. Rice, Allan Schenck, G. T. Renegar, Ralph W. Shaffer, W. K. Schlotterbeck, Robert A. Sloman, Norman R. Smith, Chas. A. Shubert, Kingdon R. Watt, John P. Weidner, William R. Willets, Ray Wilcox, Kenneth S. Whixler, A. H. Webber.

TAPPI Notes

Kenneth J. MacKenzie is now superintendent of paper mills for the Eastman Kodak Company, Rochester, N. Y.

Stewart L. Seaman, formerly of Du Pont, is now a cellulose consultant with Seaman and Seaman, 122 East 42nd Street, New York, N. Y.

J. Rex Adams is now vice president and technical director for the Stein, Hall Co., New York, N. Y.

J. W. Criss, formerly of Du Pont, is now technical service representative for Shawinigan Products Corporation, 350 Fifth Ave., New York, N. Y.

The TAPPI Ohio Section will meet at the Hotel Manchester, Middletown, Ohio at 6:45 p.m., April 10th. There will be a discussion of consistency regulators.

The TAPPI New England Section will meet at the Roger Smith Hotel, Holyoke, Mass., on Friday evening, April 18th at 6:30 p.m. Philip Dewey of the RPH Dispersion Div., Interchemical Corporation, will talk on Rheology of Paper Coatings.

William W. Marteny, formerly of the Crown Zellerbach Company, is now technical director for the Falls Paper & Power Company, Oconto Falls, Wis.

Richard M. Sinclair, formerly of the Univ. of Maine, is now with the Sinclair Co., Holyoke, Mass.

B. K. Roecker, formerly of the Waterproof Paper & Board Company, is now manager of the Waterproof-Ohio Paper Company, Columbus, Ohio.

White Water Clarification By Means of the Marx Filter*

By Clyde A. Benson[1] and Harold E. Brakewood[2]

Abstract

A description of the Marx filter is given; also its functions as applied to board mills. Operating procedure as practiced by two folding boxboard mills and operating results are presented.

The prinicpal purposes of this paper concern a description of the functions and construction of the Marx filter, (often, and perhaps more correctly, referred to in the industry as the Marx saveall), and a presentation of operating data and results obtained by two board mills making conventional types of high grade folding boxboard.

Function and Description

As used in a board mill, the primary function of the Marx filter is to remove the greatest possible amount of suspended matter from white water prior to its reuse or discharge to the stream. Other functions are secondary in nature but nevertheless real and of measureable value.

A Marx filter consists primarily of two large steel plate cones, one inside the other, with a space between them. The inner cone is truncated. There is also a small cone-shaped receiving well at the top and an inverted deaeration cone directly under the receiving well. There are no moving parts (see Fig. 1).

Before installing the Marx filter it is important to determine the volume of white water to be clarified, the concentration of suspended solids, and the rate of settling of the solids. This should preferably be done by installing a weir, according to TAPPI standards, in the mill tail race; a continuous liquid level recorder; a continuous sampling device; and a continuous temperature recorder. Daily composite samples of the white water should be analyzed for concentration of suspended solids and for rate of settling. From these data the proper size of filter to be installed can be approximately determined.

Waste white water from the paperboard machines is fed into the receiving well at the top, overflows on to the deaeration cone and off its outer edge into the center of the filter. The suspended solids settle through the large opening in the bottom of the inside cone and collect in the bottom of the outside cone while the water, minus most of the solids, rises between the two cones to the top of the structure where it flows over a weir into a trough from which it is withdrawn for discharge or reuse. The clarification is accomplished by settling, no coagulating chemicals being used.

The fibrous and other solids collecting at the bottom of the structure are drawn off through the nozzle at the bottom of the outer cone and reused in the papermaking process. The unit is taken out of service and washed down with a hose whenever the operating department deems it necessary. This operation takes about 2 hours.

The top of the filter is open except for the receiving well which is housed in to keep the wind from disturbing the even flow of water over the top lip of this cone. There is also a ring 2 feet high at the top of the outside cone to prevent the wind from disturbing the flow of water over the weir at the top of the structure. A walkway across the top of the structure provides access to the feed well and a circular platform facilitates washing down the cones. The walkway and platform are reached by a stairway from an adjoining building. Various methods may be used to protect the steel from corrosion. For example, all surfaces in contact with white water or its vapors may be protected by a bitumastic coating, or the inside of the outer cone may be lined with glazed tile and the remaining exposed surface covered with a suitable protective paint (see Fig. 2)

The Marx filter originated in England, the inventor being Robert Joseph Marx of London. The invention consisted essentially in mechanically removing the air bubbles from the solid particles to which they adhere by causing the liquid to fall from a height, in the form of a thin film tending to divide up into separate drops, on to a hard surface (deaeration cone) prior to its entry into a container in which the solid matter spread over such surface by the division of the drops, is collected by settling down at its own proper specific gravity while the liquid flows out by convenient outlets.

Operating Procedure and Results

One board mill in which this filter has been installed is the Robertson Paper Box Company in Montville, Connecticut. This plant is located on the Oxoboxo

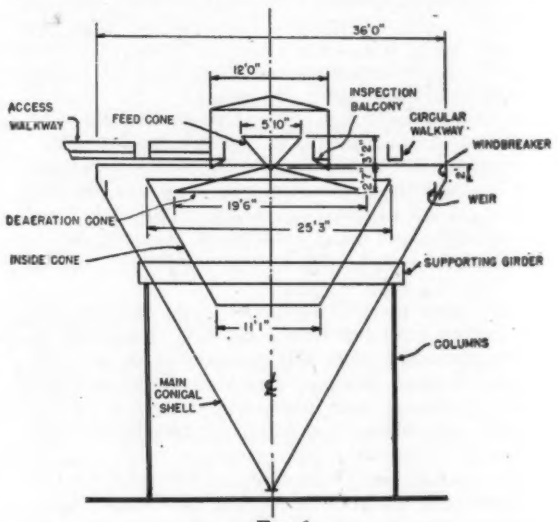

FIG. 1
Marx Conical Saveall

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[2] Member TAPPI; Chief Chemist, National Folding Box Company, Inc., New Haven, Conn.

River about 3 miles above its confluence with the Thames River. For many years, white water effluent from this one, 6-cylinder machine, trimming 65 inches, had been dumped into the Oxoboxo without restriction. Suspended solids at the rate of about 5 pounds per minute, or 7,200 pounds per day, were a source of stream pollution. The cumulative effect of this stream pollution became increasingly objectionable because it produced an unpleasant odor in the summer months. About 2 years ago a request was sent to the State authorities, demanding that steps be taken to improve this condition. As a result, the State Water Commission placed this responsibility directly in the hands of Robertson Paper Box Company and it was understood that the results would be considered satisfactory if the effluent to the stream contained no more than 0.5 pound of suspended solids per 1000 gallons.

After due consideration, it was decided that this could be accomplished economically by collecting all the board mill white water at one point, passing it through a Marx filter, and recirculating it through exchange heaters to a storage tank supplying the beater room. The suspended solids would be continuously removed from the bottom of the filter and emptied into the filler stock breaker beater. The volume of effluent to the stream would be reduced from 1000 g.p.m. to the volume of fresh water added through shower heads, and the content of suspended solids in the effluent would be reduced from 5 pounds to 0.5 pound per 1000 gallons.

New showers were installed on the cylinder machine to reduce the fresh water usage. There are now eleven showers delivering a total of 242 g. p. m. Assuming no other fresh water usage and drier evaporation amounting to 11 g. p. m. this leaves 231 g. p. m. of effluent to flow into the stream.

The white water overflowing from the top liner vat is now kept separate from the filler white water and pumped through an exchange heater to two 950-gallon tanks, which act as storage for furnishing the top liner beater, for jordan, screen, and head box dilution (see Fig. 3 for schematic diagram).

All other water from the mill is delivered to a 4000-gallon tank located in the tail race, from which it is pumped to the top of the Marx filter. The pump is direct driven by a 15 h. p. motor. The average volume passing through the filter amounts to 1000 g. p. m. The capacity of the filter is 79,000 gallons which means a detention time of 79 minutes. By means of a valve, hand controlled by the breaker beater operator, the settled solids flow by gravity from the bottom of the filter direct to the filler stock continuous breaker beater.

The clarified white water overflowing from the top of the filter runs into a 2000-gallon tank situated in the tail race. From this tank the white water is pumped to a 12,000-gallon insulated steel tank, situated outdoors and about 15 feet above the breaker beater level. The pump is direct driven by a 15 hp. motor. The latter tank acts as storage of white water used in pulping filler stock, also for jordan, screen, and head box dilution. A float valve prevents this tank from overflowing and when this valve is closed for a period longer than 2 minutes, the excess white water in the system is allowed to overflow from the 2000 gallon tank into the stream.

The results of operation of the Marx filter at the Robertson Paper Box plant for the last 4 months of 1946 are as follows:

FIG. 2
Marx Filter—National Folding Box Co., Inc.

	Suspended Solids—lb./M gal.		
	To Filter	From Filter	% Removal
September	5.13	0.68	84.9
October	4.84	0.50	88.1
November	5.09	0.29	93.8
December	4.75	0.32	92.3

The above data were obtained as follows: during each operating day, three samples each of white water going to and from the filter were made into composite samples. The suspended solids in each of these composites were determined by filtering a 1-liter sample of white water through a tared filter paper using a Büchner funnel and suction filter flask. The filter paper and contents were dried at 105° C. then weighed. The net weight of solids in grams per liter was converted to pounds per 1000 gallons. The above figures are averages for the month as indicated.

In addition to the alleviation of stream pollution which has been effected by the filter operation, there were substantial savings from the reduction of fiber and heat losses.

	Savings per Day	
Fiber 4.5 lb./min. @ $20.00 per ton	$64.80	
Heat 1000 g.p.m., 10° rise (average for year) steam @ $0.55 per M lb.	69.30	
	$134.10	$134.10
Less: Extra power for pumps, 30 hp. @ $90/hp. year	$9.00	
Amortization 10% of $27,500, 300 days per year	9.17	
Interest 5%	4.58	
Maintenance	2.00	
	24.75	24.75
Total net savings per day		$109.35

The above figures are believed to be conservative. Operation costs, except for power, are practically nil since no chemicals are used and maintenance is of small consequence. No extra labor is involved in the normal operation of this filter.

The only undesirable feature noted in the operation of the Marx filter at the Robertson Paper Box Company was the accumulation of rags and strings, which, if allowed to pass to the filter, floated on the surface of water in the inned cone and disturbed optimum conditions of settling. Once this condition was noted and corrected no further trouble existed.

At the mill of National Folding Box Company, Inc., New Haven, Connecticut, there are two board machines, one 6-cylinder trimming 122 inches and one 7-cylinder trimming 132 inches. No basement exists under these machines there being only relatively shallow pits under the wet end sections. All water (i. e., from the felt showers, from all vats, from the press section, and from floor drains) collects in the machine pits—which are interconnected—and is pumped to a Marx filter system. This system consists of two filters, one with a holding capacity of 96,000 gallons, which was installed in 1933; and the other with a holding capacity of 130,000 gallons, installed in 1945.

All liquid wastes from the beater room section of the mill which cannot be immediately reused in the filler stock preparation equipment, after being screened for removal of rags, strings, and similar gross trash, are also pumped to the system. All sewer outlets are closed (except the one discharging excess clarified water from the filter system) and the net effect is that no waste water can leave the mill without first passing through the filters and being acceptably clarified.

Oil filters are placed at strategic points to remove and collect all lubricating oil which may be present and the water is chlorinated just prior to delivery to the system.

All concentrated effluent from the bottom of the system is reused for filler and back liner furnish plus jordan and stuff box dilution. The clarified top discharge from the filter is used for felt and cylinder shower supplies and the balance is discharged to waste. Plans are under way to utilize more of this clarified water for furnish and dilution purposes.

Average figures compiled at the National Folding Box Company from nearly 14 years continuous operation of one Marx filter show the following:

Influent	2.7 lb. per thousand gal.
Effluent—bottom, sludge	5.1 lb. per thousand gal.
Effluent—top, clarified	0.26 lb. per thousand gal.
Fiber removal, %	90.3

These figures are representative of normal, non-supervised operation. By this is meant that no extra labor is used; that the operation is wholly in the hands of the usual machine crew, and that the sole criterion is sufficient volume of water to meet machine and beater room demands. It has been demonstrated that application of a minimum of technical supervision directed towards a closer control of balance between inflow and outflows will readily step up fiber removal into the range of 95 to 98%. Ordinarily, however, this has not been practiced because at this level, the factor of diminishing returns becomes operative.

In addition to reduction in fiber losses, heat savings are considerable in this mill since the temperature of the fresh water supply (artesian wells) holds very consistently throughout the year at 52°F.

Acknowledgment

The authors wish to express their appreciation to the Robertson Paper Box Company and National Folding Box Company, Inc. for permission to publish their results covering the operation of the Marx filter.

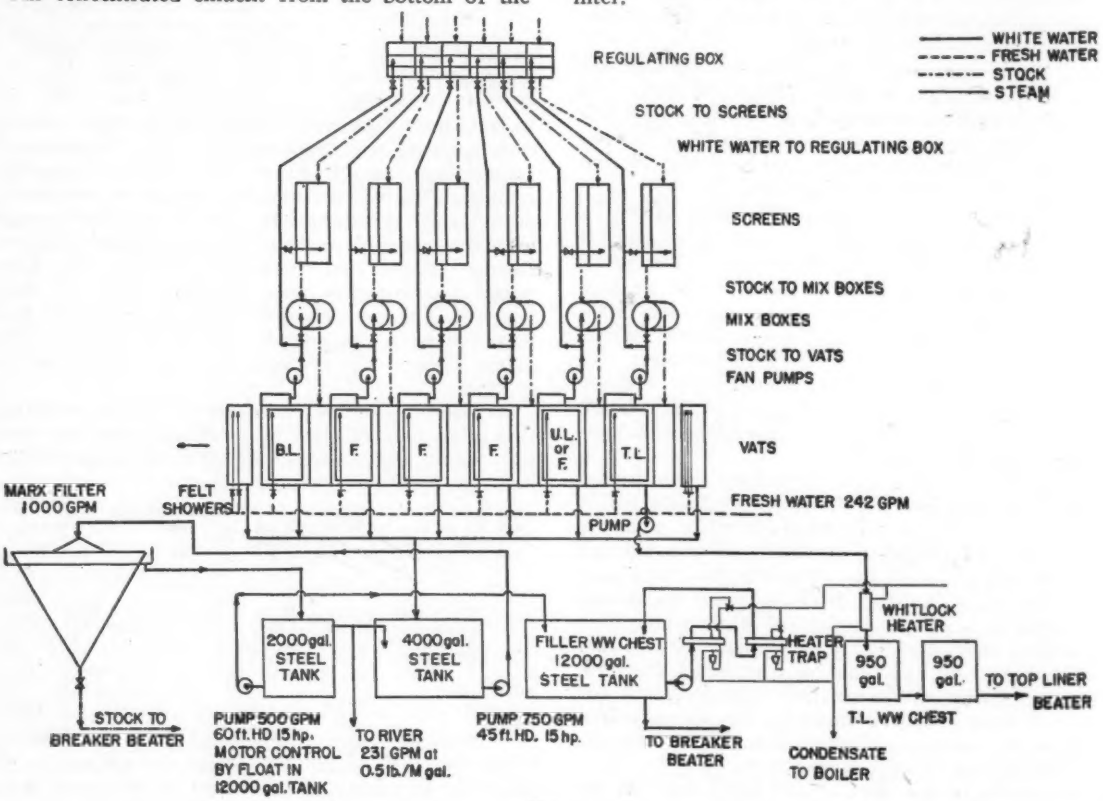

FIG. 3
Flow Diagram of Water Handling for Robertson Paper Box Co.

Ohio TAPPI Discusses Consistency Regulators

The Ohio Section of The Technical Association of the Pulp and Paper Industry held its final meeting of the 1946-47 season at the Hotel Manchester, Middletown, Ohio on Thursday evening, April 10, 1947. Sixty-six members were present for dinner.

Before the election of officers an amendment to the Ohio Section constitution was passed which created the offices of Corresponding Secretary, Recording Secretary, and Treasurer to take the place of the present office of Secretary-Treasurer. This was deemed advisable because of the greatly increased amount of work.

The following slate of officers presented by C. D. Roess, chairman of the Nominating Committee, were then elected for the coming year: Chairman, D. M. Yost, Sorg Paper Co; Vice-Chairman, P. S. Cade, Harding-Jones Co.; Treasurer, E. K. Lum, Beckett Paper Co.; Recording Secretary, Harold C. Koch, Aetna Paper Co.; Corresponding Secretary, Don Goodman, Sorg Paper Co.

Members of the Executive Committee are: K. P. Geohegan, Aetna Paper Co., Div., E. C. Hendrickson, The Mead Corp., Douglas Robbins, Douglas Robbins & Co., H. H. Harrison, Crystal Tissue Co., Colin Gardner, III, Gardner Richardson Co.

Nelson Benzing of the Champion Paper & Fibre Company then opened the evening's discussion on "Consistency Regulators". He in turn briefly discussed the Trimbey, Poirier, Foxboro-Bramer, Bird-Sall, Copes, Dezurik, C. E., and Myers-Mesco consistency regulators. He pointed out that all of them worked on the principal that a change in consistency gives a corresponding change in viscosity. Since there is little change in viscosity at consistencies under 2% all of them must be operated at a consistency over 2%. It was also pointed out that the higher the consistency the greater the change in viscosity and therefore the better the control. Consistencies of 3½% to 4½% are preferred.

He pointed out that the first four regulators mentioned were of the hydraulic type while the last four were of the mechanical type. In the hydraulic type the stock flows through some type of measuring device which measures either the rate of flow at a constant head or the head necessary to produce constant flow.

It was pointed out that the Trimbey was a small sample regulator which meant that it must be used to regulate stock in a chest and not direct to the paper machine. It was later stated during the general discussion that Trimbey's had now been installed which handled all the stock direct to the paper machine.

In contrast to the Trimbey which has the viscosity tube following the float the Poirier has the viscosity tube installed before the float; therefore, if the stock should stop coming to the regulator for any reason, the water valve would be automatically opened.

In discussing the Foxboro-Brammer it was pointed out that each of these instruments is designed specifically for the machine on which it is to be installed. They make use of a standard bubble type liquid level gauge which measures the change in head as the stock flows through a channel. Also included in this installation is the Foxboro-Recorder which records how much water is being added at any time. Mr. Benzing recommended that a recording chart be installed on the water valve of any consistency regulator being used.

In the discussion of mechanical regulators it was pointed out that the Cope uses a rotating disc while the Dezurik uses rotating paddles which operate the water valve through a trosian spring. The Myers-Mesco employes a chain driven paddle. As the consistency becomes higher the resistance to the paddle movement becomes higher which in turn causes some of the slack to be pulled out of the chain. The amount of slack in the chain is used as a measure of the consistency.

It was stated that any of the consistency regulators seemed to work satisfactorily if properly installed. Any of them can be installed between the machine chest and the beater chest but only the type which handles all the stock can be installed on the paper machine.

In the discussion of the method of installation it was pointed out that some people prefer to add the water some distance from the regulator so that it will become thoroughly mixed by the time it reaches the regulator. This method of course causes a time lag in regulation and some manufacturers have felt that sufficient mixing is obtained even though the water is added just before the regulator.

It was pointed out that the mechanical type regulator was slower acting than the float type but for this reason was not so apt to overshoot. When a regulator overshoots too much it is a sign that some adjustment is needed in the rate at which the water valve is changed.

In the discussion that followed Mr. Benzing's talk it was pointed out that regulation errors could be caused by changes in the stock which would cause two stocks of the same consistency to have two different viscosities. Mr. Benzing felt that as long as reasonable-stock uniformity was maintained, this effect was not great enough to cause any trouble in the grades with which he had worked. However, it was thought that more trouble might be encountered when regulating rag stock which was highly beaten and might therefore be more apt to be variable.

Those present at the meeting included the following: M. L. Baker, W. Downie, R. H. Frazer, F. S. McGee, A. C. Groom, H. A. Smith, K. F. Miles, S. M.Bagler, B. P. Bunch, J. R. Arnold, Charles Moore, Kon Matchuck, J. W. Natwick, P. E. Clark, H. Bettinger, Wm. Reigers, C. J. Pflanzer, M. G. Magnuson, F. L. Zellers, R. B. Goble, K. P. Goehegan, P. S. Cade, C. M. Stapp, C. D. Roess, N. S. Benzing, D. M. Yost, C. E. Brandon, Art Thurn, J. L. Clouse, C. A. Miller, W. J. Carroll, W. Gutzwiller, S. J. Porter, D. Keckler, H. C. Koch, H. J. Pedley, J. F. Grazer, C. O. McNeer, J. A. Owen, F. A. Root, W. J. Cassidy, L. B. Barnes, Owen Moore, Jim Hoerner, Bill Bwen, D. W. Newell, H. A. Harvey, Edward Lum, S. A. Hluchan, J. H. Moyer, G. H. Tompkinson, C. H. Butterfield, J. N. Gammom, C. A. Sorg, J. E. Brudsall, L. M. Tyler, T. B. Mathers, L. T. Murphy, P. J. Jerard, G. S. Sharpe, R. R. Crawford, S. A. Staege, L. W. Newger, D. Robbins, Don Goodman, G. H. Suhs.

Lake States TAPPI Discusses Technical Personnel

The Lake States section of the Technical Association of the Pulp and Paper Industry met Tuesday, April 8, 1947, 6:30 p. m. at the American Legion Club House, Appleton, Wis. C. J. West, Jr., Vice-Chairman, presided at the meeting. Approximately seventy-five men attended the dinner. The meeting was a panel discussion on "Today's Problems in Procurement of Technical Personnel."

J. B. Fagot, Procurement Manager, Personnel Division, Marathon Corporation, Menasha, Wisconsin, spoke on procurement procedure. Mr. Fagot stressed the importance of first setting up in writing complete job specifications so that anyone can understand what the job consists of. The specifications should cover the following points: job title, complete description of duties, to whom the employee will report, special training and skills needed, age factor, and starting salary range. The importance of making a complete canvass of one's own personnel before contacting outside sources for new personnel was also emphasized. Under the category of outside sources, Mr. Fagot enumerated the following: Universities and colleges, newspapers and trade magazine advertisements, state or federal employment services, private employment agencies, technical associations such as the American Chemical Society and TAPPI, and Company employees, or house organs.

Very complete information should be given on company background with factual "color" concerning geographic location, housing, recreation, transportation facilities, etc. Before an applicant is interviewed, one should obtain a complete application filled out on a company form, and a photograph. The interview should be so conducted that all candidates are examined within a few days' time so that a good comparison can be made. The interview should be made in such a way that the applicant will make an appraisal of himself and the new job in such a way that he can arrive at an early decision.

J. E. Todd, Assistant Dean, The Institute of Paper Chemistry, Appleton, Wisconsin, then spoke on the basis of selection of applicants. This involved the determination of the following points concerning the applicant: knowledge, aptitude, character and personality characteristics, and interest. Dr. Todd described the means of obtaining this information under the category of application blanks, recommendations from schools, employers, etc., interviews, and particularly objective standard tests. Information concerning these tests can be obtained through the Veterans Administration Testing Centers in various Universities or the graduate record office.

Jens Sorensen, Personnel Representative, Technical Division, Kimberly Clark Corporation, Neenah, Wisconsin, then discussed the adjustment of technical men to the organization by which they are employed. Mr. Sorenson said that all technical men are in various fields because of differences in their makeup and personal requirements and desires. He stated that it was important to remember that all technical men want recognition, that their attitude may change toward their job as the job develops, and that the most can be obtained from a man who is completely satisfied with his work.

In the discussion which followed it was suggested that it was very important for industry to give proper recognition to technical men in their jobs and to periodically re-evaluate the men and the jobs so that these men can be advanced in proportion to their capacity and acceptance of responsibility.

The annual Spring meeting of the Lake States Section will be held in Madison, Wisconsin, the afternoon and evening of Friday, May 9. Forest Products Laboratory will sponsor the program. Election of officers will also be held.

Those present included: Ernest P. Adams, Robert P. Anderson, Joe Atchison, L. R. Ayers, J. S. Barton, G. Beall, Arnold G. Beaman, Paul Moronow, Martin Bretl, L. D. Bush, Warren A. Chilsen, Arthur A. Coffin, William L. Cogger, H. C. Crandall, D. W. Davis, H. P. Dixon, M. L. Downs, H. O. Ehrisman, J. B. Fagot, William A. Fannon, Henry Fowler, John Graff, W. S. Grimes, John Handeyside, Paul B. Hansen, John A. Hanson, Ralph S. Heyden, A. M. Heald, Merle Heath, Anthony A. Helminiak, Raymond W. Henschel, T. A. Howells, E. G. Ingalls, I. H. Isenberg, Vern L. Joseph, William S. Kennedy, Joseph J. Kryszak, Harold Lausman, Pierce Manley, W. W. Marteny, Wm. A. J. Mitchell, Carl Moe, L. A. Moss, George P. Mueller, Harold Norseen, S. R. Parsons, A. Phillips, S W. Pollock, E. R. Purdy, F. T. Ratliff, John A. Rhode, Milton A. Schreiner, Carl-Fredrik Schulerud, G. R. Sears, E. W. Shannon, Lawrence A. Shipman, F. L. Shonkwiler, L. E. Simerl, L. E. Smith, Jens H. Sorenson, Clyde W. Steele, Robert M. Stuart, J. E. Todd, Fred D. Trish, S. A. Trivedi, J. A. Vandenaker, J. D. Wells, S. D. Wells, H. Wenberg, C. J. West, Jr.

New TAPPI Members

The Executive Committee of the Technical Association of the Pulp and Paper Industry has elected the following to membership:

Leroy A. Blaisdell, Technical Representative, Kelco Company, New York City, a 1924 graduate of Pratt Institute.

Walter C. Bloomquist, Application Engineer, General Electric Co., Schenectady, New York, a 1934 graduate of the University of Minnesota.

William H. Carlson, Director of Libraries, Oregon State College, Corvallis, Oregon, a 1924 graduate of the University of Nebraska, and an M. A. from the University of California in 1937.

Paul B. Fowler, Paper Mill Superintendent, The Morley Company, Portsmouth, New Hampshire, a 1931 graduate of Northeastern University.

Robert A. Johnston, Chemical Engineer, Bathurst Power & Paper Co. Ltd., Bathurst, N. B., Canada, a 1940 graduate of the Laurence Institute of Technology.

Robert J. Lynch, Technician, Owens-Illinois Glass Co., Toledo, Ohio. Attended Northwestern University.

Ray C. Martin, Consulting chemist, 915 North Wayne St., Arlington, Virginia, a 1925 graduate of the University of Southern California.

Clifford J. McDowell, Technical Sales, Corn Products Fellowship, Mellon Institute, Pittsburgh, Pennsylvania. Attended Parkdale College, the University of Toronto.

Hubert F. Parker, Maintenance Engineer, New York and Pennsylvania Co., Inc., Lock Haven, Pennsylvania, a 1920 graduate of Lowell Textile Institute.

John C. Pitzer, Chemical Engineer, The Formica Insulation Co., Cincinnati, Ohio, a 1923 graduate of Tri-State University.

John R. Rogers, Paper Mill Superintendent, J. & J. Rogers Co., AuSable Forks, New York, a 1930 graduate of Union College.